



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

ANNUAL STATEMENT

FOR THE YEAR ENDED DECEMBER 31, 2022

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 Julieta Giselle Sinisgalli
Secretary Akintokunbo Akinbajo Appointed 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
President and Chief Executive Officer

Akintokunbo Akinbajo
Secretary

Julieta Giselle Sinisgalli
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 2022 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).....	1,167,689,679	1,874,165,369	3,041,855,048	3,212,953,942
2. Stocks (Schedule D):				
2.1 Preferred stocks				
2.2 Common stocks		1,014,094,845	1,014,094,845	1,377,928,591
3. Mortgage loans on real estate (Schedule B)	7,668,464		7,668,464	8,931,579
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 (\$ Schedule E - Part 1), and cash equivalents (\$ 171,468,431 , Schedule E - Part 2)	23,255,695	148,212,736	171,468,431	225,780,706
6. Short-term investments (Schedule DA)		25,211,180	25,211,180	119,714,214
7. Derivatives (Schedule DB)	53,150	278,060,814	278,113,964	1,507,112
8. Other invested assets (Schedule BA)	580,493	41,172	621,665	641,414
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)	1,199,247,481	3,339,786,116	4,539,033,597	4,947,457,558
12. Investment income due and accrued	7,340,567	5,315,022	12,655,589	11,032,240
13. Receivables for securities	9,224,960	8,969,667	18,194,627	16,341,772
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)	1,215,813,008	3,354,070,805	4,569,883,813	4,974,831,570
DETAILS OF WRITE-INS				
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 2022 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)	1,220,896,193	3,334,557,871	4,555,454,064	4,952,940,207
2. Liability for deposit-type contracts (Exhibit 4, Line 9, Col. 1)				
3. Interest Maintenance Reserve	473,211		473,211	678,757
4. Charges for investment management, administration and contract guarantees due or accrued	399,069	286,299	685,368	593,556
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 \$ 278,811 accrued expense allowances recognized in reserves).....	(14,967,038)	9,646,749	(5,320,289)	(17,567,668)
11. Remittances and items not allocated	100,677		100,677	204,399
12. Derivatives	169,158	392,463	561,621	27,366
13. Payable for securities	8,741,738	8,968,364	17,710,102	37,104,666
14. Payable for securities lending				
15. Net adjustment in assets and liabilities due to foreign exchange rates				
16. Aggregate write-ins for liabilities		219,059	219,059	850,287
17. Total liabilities (including \$ (4,634,921) due or accrued net transfers to or (from) the general account)	1,215,813,008	3,354,070,805	4,569,883,813	4,974,831,570
18. Contributed surplus				
19. Aggregate write-ins for special surplus funds				
20. Unassigned funds				
21. Surplus (Lines 18 through 20)				
22. Totals	1,215,813,008	3,354,070,805	4,569,883,813	4,974,831,570
DETAILS OF WRITE-INS				
1601. Claims in course of settlement		213,062	213,062	840,917
1602. Annuitant mortality fluctuation fund		5,997	5,997	9,370
1603.				
1698. Summary of remaining write-ins for Line 16 from overflow page				
1699. Totals (Lines 1601 thru 1603 plus 1698)(Line 16 above)		219,059	219,059	850,287
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 2022 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	25,663,243	26,138,016
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)	25,663,243	26,138,016
2. Transfers on account of deposit-type contracts (including \$ deposits less \$ withdrawals)		
3. Net investment income and capital gains and losses	(227,327,716)	267,773,175
4. Aggregate write-ins for other income		
5. Totals (Lines 1.4 to 4)	(201,664,473)	293,911,191
DEDUCT:		
6. Transfers from the Separate Account on account of contract benefits:		
6.1 Death benefits	96,407,697	67,860,953
6.2 Matured endowments		
6.3 Annuity benefits	1,297,390	1,205,089
6.4 Payments on supplementary contracts with life contingencies		
6.5 Accident and health benefits		
6.6 Surrender benefits and withdrawals for life contracts	24,764,183	40,192,062
6.7 Aggregate write-ins for other transfers from Separate Accounts on account of contract benefits		
7. Transfers on account of policy loans	8,729,394	3,358,424
8. Net transfer of reserves from or (to) Separate Accounts	(8,066,442)	2,984,826
9. Other transfers from the Separate Accounts:		
9.1 Federal and foreign income taxes incurred		
9.2 Change in expense allowances recognized in reserves	(130,101)	34,167
9.3 Aggregate write-ins for other transfers from Separate Accounts		8
10. Subtotals (Lines 6.1 to 9.3)	123,002,121	115,635,529
11. Fees associated with charges for investment management, administration and contract guarantees	73,450,776	68,296,969
12. Increase in aggregate reserve for life and accident and health contracts	(397,486,143)	109,282,977
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	(631,228)	695,716
16. Totals (Lines 10 to 15)	(201,664,473)	293,911,191
17. Net gain from operations (including \$ unrealized capital gains) (Line 5 minus Line 16)		
SURPLUS ACCOUNT		
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)		
DETAILS OF WRITE-INS		
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. Miscellaneous		8
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)		8
1501. Claims in course of settlement	(627,855)	696,328
1502. Change in annuitant mortality fluctuation fund	(3,373)	(612)
1503.		
1598. Summary of remaining write-ins for Line 15 from overflow page		
1599. Totals (Lines 1501 thru 1503 plus 1598)(Line 15 above)	(631,228)	695,716
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 2022 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	25,663,243	25,658,443		4,800			
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)	25,663,243	25,658,443		4,800			
2. Transfers on account of deposit-type contracts (including \$ deposits less \$ withdrawals)							
3. Net investment income and capital gains and losses	(227,327,716)	(233,326,754)	15,838,693	(9,839,655)			
4. Aggregate write-ins for other income							
5. Totals (Lines 1.4 to 4)	(201,664,473)	(207,668,311)	15,838,693	(9,834,855)			
DEDUCT:							
6. Transfers from the Separate Account on account of contract benefits:							
6.1 Death benefits	96,407,697	87,888,181	8,519,516			XXX	
6.2 Matured endowments						XXX	
6.3 Annuity benefits	1,297,390	XXX	XXX	1,297,390		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	24,764,183	22,441,783		2,322,400		XXX	
6.7 Aggregate write-ins for other transfers from Separate Accounts on account of contract benefits							
7. Transfers on account of policy loans	8,729,394	8,729,394				XXX	
8. Net transfer of reserves from or (to) Separate Accounts	(8,066,442)	(2,250,223)	(5,814,855)	(1,364)			
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	(130,101)	(128,906)		(1,195)		XXX	
9.3 Aggregate write-ins for other transfers from Separate Accounts							
10. Subtotals (Lines 6.1 to 9.3)	123,002,121	116,680,229	2,704,661	3,617,231			
11. Fees associated with charges for investment management, administration and contract guarantees	73,450,776	67,158,584	5,834,139	458,053			
12. Increase in aggregate reserve for life and accident and health contracts	(397,486,143)	(390,879,270)	7,299,893	(13,906,766)			
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	(631,228)	(627,855)		(3,373)			
16. Totals (Lines 10 to 15)	(201,664,473)	(207,668,311)	15,838,693	(9,834,855)			
17. Net gain from operations (including \$ unrealized capital gains) (Line 5 minus Line 16)							
18. Policies/certificates in force end of year	28,680	25,179	3,025	476			
DETAILS OF WRITE-INS							
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	(627,855)	(627,855)					
1502. Change in annuitant mortality fluctuation fund	(3,373)			(3,373)			
1503.							
1598. Summary of remaining write-ins for Line 15 from overflow page							
1599. Totals (Lines 1501 thru 1503 plus 1598) (Line 15 above)	(631,228)	(627,855)		(3,373)			

ANNUAL STATEMENT FOR THE YEAR 2022 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)	25,658,443	XXX						156,075	25,502,368	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	
1.4 Totals (Lines 1.1 to 1.3)	25,658,443	XXX						156,075	25,502,368	XXX	
2. Transfers on account of deposit-type contracts (including \$ deposits less \$ withdrawals)		XXX								XXX	
3. Net investment income and capital gains and losses	(233,326,754)	XXX						(1,168,106)	(232,158,648)	XXX	
4. Aggregate write-ins for other income		XXX								XXX	
5. Totals (Lines 1.4 to 4)	(207,668,311)	XXX						(1,012,031)	(206,656,280)	XXX	
DEDUCT:											
6. Transfers from the Separate Account on account of contract benefits:											
6.1 Death benefits	87,888,181	XXX						30,034	87,858,147	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	22,441,783	XXX						235,192	22,206,591	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	8,729,394	XXX						(94,606)	8,824,000	XXX	
8. Net transfer of reserves from or (to) Separate Accounts	(2,250,223)	XXX						669	(2,250,892)	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	(128,906)	XXX							(128,906)	XXX	
9.3 Aggregate write-ins for other transfers from Separate Accounts		XXX								XXX	
10. Subtotals (Lines 6.1 to 9.3)	116,680,229	XXX						171,289	116,508,940	XXX	
11. Fees associated with charges for investment management, administration and contract guarantees	67,158,584	XXX						243,805	66,914,779	XXX	
12. Increase in aggregate reserve for life and accident and health contracts	(390,879,270)	XXX						(1,427,125)	(389,452,145)	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	(627,855)	XXX							(627,855)	XXX	
16. Totals (Lines 10 to 15)	(207,668,311)	XXX						(1,012,031)	(206,656,280)	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	25,179	XXX						150	25,029	XXX	
DETAILS OF WRITE-INS											
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	(627,855)	XXX							(627,855)	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)	(627,855)	XXX							(627,855)	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.

ANNUAL STATEMENT FOR THE YEAR 2022 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	Universal Life	Variable 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	15,838,693					15,838,693	XXX	
4. Aggregate write-ins for other income							XXX	
5. Totals (Lines 1.4 to 4)	15,838,693					15,838,693	XXX	
DEDUCT:								
6. Transfers from the Separate Account on account of contract benefits:								
6.1 Death benefits	8,519,516					8,519,516	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	(5,814,855)					(5,814,855)	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)	2,704,661					2,704,661	XXX	
11. Fees associated with charges for investment management, administration and contract guarantees	5,834,139					5,834,139	XXX	
12. Increase in aggregate reserve for life and accident and health contracts	7,299,893					7,299,893	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)	15,838,693					15,838,693	XXX	
17. Net gain from operations (including \$ unrealized capital gains) (Line 5 minus Line 16)							XXX	
18. Policies/certificates in force end of year	3,025					3,025	XXX	
DETAILS OF WRITE-INS								
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 2022 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	4,800	XXX	XXX	4,800	XXX	XXX
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)	4,800			4,800		
2. Transfers on account of deposit-type contracts (including \$ deposits less \$ withdrawals)						
3. Net investment income and capital gains and losses	(9,839,655)			(9,839,655)		
4. Aggregate write-ins for other income						
5. Totals (Lines 1.4 to 4)	(9,834,855)			(9,834,855)		
DEDUCT:						
6. Transfers from the Separate Account on account of contract benefits:						
6.1 Death benefits						
6.2 Matured endowments						
6.3 Annuity benefits	1,297,390			1,297,390		
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	2,322,400			2,322,400		
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	(1,364)			(1,364)		
9. Other transfers from the Separate Accounts:						
9.1 Federal and foreign income taxes incurred						
9.2 Change in expense allowances recognized in reserves	(1,195)			(1,195)		
9.3 Aggregate write-ins for other transfers from Separate Accounts						
10. Subtotals (Lines 6.1 to 9.3)	3,617,231			3,617,231		
11. Fees associated with charges for investment management, administration and contract guarantees	458,053			458,053		
12. Increase in aggregate reserve for life and accident and health contracts	(13,906,766)			(13,906,766)		
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	(3,373)			(3,373)		
16. Totals (Lines 10 to 15)	(9,834,855)			(9,834,855)		
17. Net gain from operations (including \$ unrealized capital gains) (Line 5 minus Line 16)						
18. Policies/certificates in force end of year	476			476		
DETAILS OF WRITE-INS						
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	(3,373)			(3,373)		
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)	(3,373)			(3,373)		

(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 2022 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	3,697,339,756	XXX						12,556,790	3,684,782,966	XXX	
2. Tabular net premiums and considerations for annuities and supplementary contracts with life contingencies	25,658,443	XXX						156,075	25,502,368	XXX	
3. Increase or (decrease) from investment results after provision for federal income taxes	(233,326,754)	XXX						(1,168,106)	(232,158,648)	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)	3,489,671,445	XXX						11,544,759	3,478,126,686	XXX	
8. Net transfer of reserves from or (to) Separate Accounts	(2,250,224)	XXX						669	(2,250,893)	XXX	
9. Tabular cost	54,659,869	XXX						243,805	54,416,064	XXX	
10. Reserves released by death	87,888,181	XXX						30,034	87,858,147	XXX	
11. Reserves released by other terminations (net)	22,441,784	XXX						235,192	22,206,592	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	12,498,716	XXX							12,498,716	XXX	
14. Aggregate write-ins for other decreases in reserves	7,972,633	XXX						(94,606)	8,067,239	XXX	
15. Total deductions (Lines 8 to 14)	183,210,959	XXX						415,094	182,795,865	XXX	
16. Reserve December 31 of current year	3,306,460,486	XXX						11,129,665	3,295,330,821	XXX	
Cash Surrender Value and Policy Loans											
17. CSV ending balance December 31, current year	3,301,757,430	XXX						7,324,975	3,294,432,455	XXX	
18. Amount available for policy loans based upon Line 17 CSV	2,641,405,944	XXX						5,859,980	2,635,545,964	XXX	
DETAILS OF WRITE-INS											
1401. Change in policy loans	8,729,394	XXX						(94,606)	8,824,000	XXX	
1402. Claims in course of settlement	(627,855)	XXX							(627,855)	XXX	
1403. Change in surrender charge offset	(128,906)	XXX							(128,906)	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)	7,972,633	XXX						(94,606)	8,067,239	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 2022 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	1,213,596,300					1,213,596,300	XXX	
2. Tabular net premiums and considerations							XXX	
3. Increase or (decrease) from investment results after provision for federal income taxes	15,838,693					15,838,693	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)	1,229,434,993					1,229,434,993	XXX	
8. Net transfer of reserves from or (to) Separate Accounts	(5,814,855)					(5,814,855)	XXX	
9. Tabular cost						XXX	XXX	
10. Reserves released by death	8,519,516					8,519,516	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	5,834,139					5,834,139	XXX	
14. Aggregate write-ins for other decreases in reserves							XXX	
15. Total deductions (Lines 8 to 14)	8,538,800					8,538,800	XXX	
16. Reserve December 31 of current year	1,220,896,193					1,220,896,193	XXX	
Cash Surrender Value and Policy Loans								
17. CSV ending balance December 31, current year	1,211,404,158					1,211,404,158	XXX	
18. Amount available for policy loans based upon line 17 CSV	969,123,326					969,123,326	XXX	
DETAILS OF WRITE-INS								
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 2022 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	42,004,151			42,004,151			
2. Tabular net premiums and considerations	4,800			4,800			
3. Increase or (decrease) from investment results after provision for federal income taxes	(9,839,655)			(9,839,655)			
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)	32,169,296			32,169,296			
8. Net transfer of reserves from or (to) Separate Accounts	(1,364)			(1,364)			
9. Tabular cost							
10. Reserves released by deathXXX	.XXX	.XXX	.XXX	.XXX	.XXX	
11. Reserves released by other terminations (net)	2,322,400			2,322,400			
12. Transfers on account of annuity and supplementary contract payments involving life contingencies	1,297,390			1,297,390			
13. Charges for investment management, administration and contract guarantees	458,053			458,053			
14. Aggregate write-ins for other decreases in reserves	(4,568)			(4,568)			
15. Total deductions (Lines 8 to 14)	4,071,911			4,071,911			
16. Reserve December 31 of current year	28,097,385			28,097,385			
Cash Surrender Value and Policy Loans							
17. CSV ending balance December 31, current year	27,895,824			27,895,824			
18. Amount available for policy loans based upon line 17 CSV							
DETAILS OF WRITE-INS							
1401. Change in annuitant mortality fluctuation fund	(3,373)			(3,373)			
1402. Change in surrender charge offset	(1,195)			(1,195)			
1403.							
1498. Summary of remaining write-ins for Line 14 from overflow page							
1499. TOTALS (Lines 1401 thru 1403 plus 1498) (Line 14 above)	(4,568)			(4,568)			

(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 2022 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) 11,630,040	12,474,204
1.1 Bonds exempt from U.S. tax	(a)	
1.2 Other bonds (unaffiliated)	(a) 73,817,499	74,559,480
1.3 Bonds of affiliates	(a)	
2.1 Preferred stocks (unaffiliated)	(b)	
2.11 Preferred stocks of affiliates	(b)	
2.2 Common stocks (unaffiliated)	143,513,309	143,513,331
2.21 Common stocks of affiliates		
3. Mortgage loans	(c) 693,693	687,633
4. Real estate	(d)	
5. Contract loans		
6. Cash, cash equivalents and short-term investments	(e) 421,632	491,174
7. Derivative instruments	(f) (16,140,802)	(16,140,802)
8. Other invested assets	26,301	
9. Aggregate write-ins for investment income	(1,539,538)	(1,539,538)
10. Total gross investment income	212,422,134	214,045,482
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)		214,045,482
DETAILS OF WRITE-INS		
0901. Miscellaneous	(1,745,084)	(1,745,084)
0902. Amortization of IMR	205,546	205,546
0903.		
0998. Summary of remaining write-ins for Line 9 from overflow page		
0999. Totals (Lines 0901 thru 0903 plus 0998) (Line 9, above)	(1,539,538)	(1,539,538)
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 \$ 1,774,345 accrual of discount less \$ 2,151,777 amortization of premium and less \$ 1,871,583 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 \$ 1,157 accrual of discount less \$ 23,783 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 \$ 76,694 accrual of discount less \$ 1,645 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	(7,113,128)		(7,113,128)	(31,354,780)	
1.1 Bonds exempt from U.S. tax					
1.2 Other bonds (unaffiliated)	(21,306,090)		(21,306,090)	(256,149,383)	
1.3 Bonds of affiliates					
2.1 Preferred stocks (unaffiliated)					
2.11 Preferred stocks of affiliates					
2.2 Common stocks (unaffiliated)	17,448,660		17,448,660	(414,065,903)	
2.21 Common stocks of affiliates					
3. Mortgage loans	37		37		
4. Real estate					
5. Contract loans					
6. Cash, cash equivalents and short-term investments	1,194,582		1,194,582		
7. Derivative instruments	(6,080,371)		(6,080,371)	276,072,599	
8. Other invested assets				(19,421)	
9. Aggregate write-ins for capital gains (losses)					
10. Total capital gains (losses)	(15,856,310)		(15,856,310)	(425,516,888)	
DETAILS OF WRITE-INS					
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 ^(a)	Ordinary	Group
0100001. 58 CSO 4.00% Mod CRVM (issued 1983 to 1988)	11,129,665	11,129,665	
0100002. 80 CSO 5.50% CRVM (issued 1988 to 1992)	183,360,202	183,360,202	
0100003. 80 CSO 5.00% CRVM (issued 1993 to 1994)	514,184,381	514,184,381	
0100004. 80 CSO Account Value	3,818,682,431	2,597,786,238	1,220,896,193
0199999. Life Insurance: Totals	4,527,356,679	3,306,460,486	1,220,896,193
0200001. Deferred Annuity 4.75%-6.50% CARVM	27,897,481	27,897,481	
0200002. Annuity Reserve 4.00 % VA Valuation 82	199,904	199,904	
0299999. Annuities: Totals	28,097,385	28,097,385	
9999999. Totals (to Page 3, Line 1)	4,555,454,064	3,334,557,871	1,220,896,193

(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
NONE			
9999999 - Totals (Page 6, Line 5, Analysis of Increase in Reserve)			

Exhibit 4

NONE

ANNUAL STATEMENT FOR THE YEAR 2022 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		25,663,243
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		212,422,134
3. Investment income collected		94,634,874
4. Consideration on disposal of short-term bonds net of purchases		930,034,825
5. Consideration on disposal of investments (excluding short-term bonds)		
6. Aggregate write-ins for other increases in funds from operations		
7. Total (Lines 1 to 6)		1,262,755,076
8. Cost of investments acquired (excluding short-term bonds)		1,111,525,708
9. Transfers from Separate Accounts on account of contract benefits:		
9.1 Death benefits		95,725,953
9.2 Matured endowments		
9.3 Annuity benefits		1,297,390
9.4 Supplementary contract benefits with life contingencies		
9.5 Accident and health benefits		
9.6 Surrender benefits and withdrawals for life contracts		24,764,184
9.7 Policy loans (net)		8,729,394
9.8 Transfers of reserves (net)		(19,422,629)
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		(158,981)
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		73,358,913
13. Investment taxes, licenses and fees, excluding federal income taxes (Exhibit 2, Line 9)		
14. Total (Lines 8 to 13)		1,295,819,932
15. Funds from operations (Line 7 minus Line 14)		(33,064,856)
16. Surplus contributed or (withdrawn) during year		
17. Aggregate write-ins for other changes in funds		
18. Total funds (includes \$ 158,789,961 net transfers from general account) (Lines 15 to 17)		(33,064,856)
19. Increase in payable for investments acquired, net of receivable for investments sold		(21,247,419)
20. Decrease in policy loans		
21. Aggregate write-ins for other reconciling items		
22. Increase in cash (Line 18 to 21)		(54,312,275)
RECONCILIATION BETWEEN YEARS		
23. Cash and invested assets, December 31st of prior year		4,947,457,558
24. Increase in cash (Line 22)		(54,312,275)
25. Cost of invested assets acquired		1,212,877,369
26. Adjusted cost of assets disposed of		1,141,146,830
27. Increase in policy loans		
28. Accrual of discount less amortization of premium		(325,337)
29. Depreciation on real estate and other invested assets		
30. Increase in net unrealized gains		(425,516,888)
31. Aggregate write-ins for other reconciling items		
32. Cash and invested assets, December 31st of current year		4,539,033,597
DETAILS OF WRITE-INS		
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 9.9 above)		
10.201. Change in other transfers to general account due or accrued		(339,498)
10.202. Change in remittances and items not allocated		103,722
10.203. Investment income recognized as a result of prepayment penalties and/or acceleration fees		76,795
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)		(158,981)
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	1,220,896,193	26.7
1.2 Annuities		
1.3 Supplementary contracts with life contingencies		
1.4 Accident and health		
1.5 Miscellaneous reserves		
1.6 Total	1,220,896,193	26.7
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)	(5,826,231)	(0.1)
4. Total liabilities associated with guarantees (Lines 1.6 + 2.6 + 3)	1,215,069,962	26.6
5. Total liabilities not associated with guarantees	3,354,813,851	73.4
6. Total Separate Accounts liabilities (Lines 4 + 5 = Page 3, Line 17)	4,569,883,813	100.0 %

ANNUAL STATEMENT FOR THE YEAR 2022 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. 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.

Note: A distinct disaggregated product identifier shall be used for each product and shall be used consistently throughout the interrogatory. Disaggregation of reporting shall be such that each product filing or policy form is separately identified. For example, if a company has 5 different separate group annuities, each annuity shall be separately reported. (Companies may eliminate proprietary information however such elimination will require the use of unique reporting identifiers).

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 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	Not Registered with SEC		
	2 Registered with SEC	3 Not Registered with SEC					Private Placement Variable Annuity	Private Placement Life Insurance	Other (Not PPVA or PPLI)
1.01A0001 Pension Risk Transfer Group Annuities									
1.01A9999 Total Pension Risk Transfer Group Annuities			XXX						
1.01B0001 All Other Group Annuities									
1.01B9999 Total All Other Group Annuities			XXX						
1.01C0001 Registered Index Linked Annuities Individual Annuities									
1.01C9999 Total Registered Index Linked Annuities Individual Annuities			XXX						
1.01D0001 All Other Individual Annuities									
Individual Variable Annuity	28,112,830		YES						
1.01D9999 Total All Other Individual Annuities	28,112,830		XXX						
1.01E0001 Life Insurance									
Individual Variable Universal Life - Bank-owned Life Insurance - Guaranteed	709,128,534		YES						
.....		1,215,813,008	YES		5,289,868				1,215,813,008
Corporate-owned Life Insurance		352,773,822	YES						352,773,822
Stable Value Bank-owned Life Insurance		2,264,055,619	YES						2,264,055,619
1.01E9999 Total Life Insurance	709,128,534	3,832,642,449	XXX		5,289,868				3,832,642,449
1.01F9999 Totals	737,241,364	3,832,642,449	XXX		5,289,868				3,832,642,449

- 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.....\$ 69,433
- 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 \$

ANNUAL STATEMENT FOR THE YEAR 2022 OF THE SEPARATE ACCOUNTS OF THE MML Bay State Life Insurance Company

GENERAL INTERROGATORIES

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		5,289,868	
1.094 Over 5 Years			
1.095 Total		5,289,868	

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]

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, 2022		\$ 93,873
2.302 As of December 31, 2021		\$ 158,161
2.303 As of December 31, 2020		\$ 107,117
2.304 As of December 31, 2019		\$ 97,757
2.305 As of December 31, 2018		\$ 322,625

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 Product Identifier with Risk Charges	2 Risk Charge Reviewed and Opined Upon	3 Name and Title of Individual who Provided Opinion on Risk Charges
2.5A00001 Pension Risk Transfer Group Annuities		
2.5B00001 All Other Group Annuities		
2.5C00001 Registered Index Linked Annuities Individual Annuities		
2.5D00001 All Other Individual Annuities		
2.5E00001 Life Insurance		

GENERAL INTERROGATORIES

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, 2022	\$
2.602 As of December 31, 2021	\$
2.603 As of December 31, 2020	\$
2.604 As of December 31, 2019	\$
2.605 As of December 31, 2018	\$

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

1	2	3	4	5
Product Identifier	Net Investment Proceeds	Attributed to Contract Holder	Transferred to General Account	Reinvested Within the Separate Account
4.2A00001 Pension Risk Transfer Group Annuities				
4.2A99999 Total Pension Risk Transfer Group Annuities				
4.2B00001 All Other Group Annuities				
4.2B99999 Total All Other Group Annuities				
4.2C00001 Registered Index Linked Annuities Individual Annuities				
4.2C99999 Total Registered Index Linked Annuities Individual Annuities				
4.2D00001 All Other Individual Annuities				
4.2D99999 Total All Other Individual Annuities				
4.2E00001 Life Insurance				
4.2E99999 Total Life Insurance				
4.2F99999 Totals				

- 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]

GENERAL INTERROGATORIES

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	\$ 3,394,401,240	74.3 %
5.42 Amortized Cost	\$ 1,175,482,573	25.7 %
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... \$ 1,175,482,573	\$ 1,079,237,018	\$ (96,245,555)

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..... \$

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) \$

GENERAL INTERROGATORIES

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.

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 Product Identifier	2 Same as GAAP / Condition that Requires GAAP General Account Reporting
Individual Variable Annuity	Same as GAAP
Individual Variable Universal Life	Same as GAAP
Corporate-owned Life Insurance	Same as GAAP
Bank-owned Life Insurance - Guaranteed	GAAP GIA classification due to Investment Performance
Stable Value Bank-owned Life Insurance	GAAP GIA classification due to Investment Performance

ANNUAL STATEMENT FOR THE YEAR 2022 OF THE SEPARATE ACCOUNTS OF THE MML Bay State Life Insurance Company

FORM FOR CALCULATING THE INTEREST MAINTENANCE RESERVE

INTEREST MAINTENANCE RESERVE

	1 Amount
1. Reserve as of December 31, Prior Year	678,757
2. Current year's realized pre-tax capital gains/(losses) of \$ (14,398,412) transferred into the reserve net of taxes of \$ 5,039,443	(9,358,969)
3. Adjustment for current year's liability gains/(losses) released from the reserve	9,358,969
4. Balance before reduction for amount transferred to Summary of Operations (Line 1 + Line 2 + Line 3)	678,757
5. Current year's amortization released to Summary of Operations (Amortization, Line 1, Column 4)	205,546
6. Reserve as of December 31, current year (Line 4 minus Line 5)	473,211

AMORTIZATION

	1	2	3	4
Year of Amortization	Reserve as of December 31, Prior Year	Current Year's Realized Capital Gains/(Losses) Transferred into the Reserve Net of Taxes	Adjustment for Current Year's Liability Gains/(Losses) Released From the Reserve	Balance Before Reduction for Current Year's Amortization (Cols. 1 + 2 + 3)
1. 2022	205,541	(612,916)	612,921	205,546
2. 2023	218,817	(1,359,237)	1,359,232	218,812
3. 2024	220,096	(1,285,105)	1,285,105	220,096
4. 2025	192,984	(1,080,731)	1,080,731	192,984
5. 2026	147,494	(869,940)	869,940	147,494
6. 2027	92,398	(653,890)	653,890	92,398
7. 2028	31,684	(513,487)	513,487	31,684
8. 2029	(24,188)	(467,005)	467,005	(24,188)
9. 2030	(47,764)	(414,139)	414,139	(47,764)
10. 2031	(54,315)	(360,167)	360,167	(54,315)
11. 2032	(53,310)	(302,966)	302,966	(53,310)
12. 2033	(49,230)	(259,012)	259,012	(49,230)
13. 2034	(47,355)	(223,792)	223,792	(47,355)
14. 2035	(47,009)	(186,855)	186,855	(47,009)
15. 2036	(40,456)	(146,327)	146,327	(40,456)
16. 2037	(32,313)	(109,708)	109,708	(32,313)
17. 2038	(24,203)	(82,853)	82,853	(24,203)
18. 2039	(10,114)	(72,141)	72,141	(10,114)
19. 2040		(60,769)	60,769	
20. 2041		(47,937)	47,937	
21. 2042		(34,264)	34,264	
22. 2043		(26,668)	26,668	
23. 2044		(26,422)	26,422	
24. 2045		(26,016)	26,016	
25. 2046		(27,610)	27,610	
26. 2047		(29,015)	29,015	
27. 2048		(28,000)	28,000	
28. 2049		(22,532)	22,532	
29. 2050		(16,177)	16,177	
30. 2051		(9,822)	9,822	
31. 2052 and Later		(3,466)	3,466	
32. Total (Lines 1 to 31)	678,757	(9,358,969)	9,358,969	678,757

ANNUAL STATEMENT FOR THE YEAR 2022 OF THE SEPARATE ACCOUNTS OF THE MML Bay State Life Insurance Company

**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)
LONG-TERM BONDS												
1.		Exempt Obligations	369,087,754	XXX	XXX	369,087,754	0.0000		0.0000		0.0000	
2.1	1	NAIC Designation Category 1.A	180,951,089	XXX	XXX	180,951,089	0.0002	36,190	0.0007	126,666	0.0013	235,236
2.2	1	NAIC Designation Category 1.B	34,572,914	XXX	XXX	34,572,914	0.0004	13,829	0.0011	38,030	0.0023	79,518
2.3	1	NAIC Designation Category 1.C	30,458,921	XXX	XXX	30,458,921	0.0006	18,275	0.0018	54,826	0.0035	106,606
2.4	1	NAIC Designation Category 1.D	50,137,884	XXX	XXX	50,137,884	0.0007	35,097	0.0022	110,303	0.0044	220,607
2.5	1	NAIC Designation Category 1.E	86,800,075	XXX	XXX	86,800,075	0.0009	78,120	0.0027	234,360	0.0055	477,400
2.6	1	NAIC Designation Category 1.F	119,156,729	XXX	XXX	119,156,729	0.0011	131,072	0.0034	405,133	0.0068	810,266
2.7	1	NAIC Designation Category 1.G	110,259,444	XXX	XXX	110,259,444	0.0014	154,363	0.0042	463,090	0.0085	937,205
2.8		Subtotal NAIC 1 (2.1+2.2+2.3+2.4+2.5+2.6+2.7)	612,337,056	XXX	XXX	612,337,056	XXX	466,947	XXX	1,432,408	XXX	2,866,838
3.1	2	NAIC Designation Category 2.A	87,561,301	XXX	XXX	87,561,301	0.0021	183,879	0.0063	551,636	0.0105	919,394
3.2	2	NAIC Designation Category 2.B	63,338,303	XXX	XXX	63,338,303	0.0025	158,346	0.0076	481,371	0.0127	804,396
3.3	2	NAIC Designation Category 2.C	29,286,291	XXX	XXX	29,286,291	0.0036	105,431	0.0108	316,292	0.0180	527,153
3.4		Subtotal NAIC 2 (3.1+3.2+3.3)	180,185,895	XXX	XXX	180,185,895	XXX	447,655	XXX	1,349,299	XXX	2,250,943
4.1	3	NAIC Designation Category 3.A	2,046,550	XXX	XXX	2,046,550	0.0069	14,121	0.0183	37,452	0.0262	53,620
4.2	3	NAIC Designation Category 3.B	559,040	XXX	XXX	559,040	0.0099	5,534	0.0264	14,759	0.0377	21,076
4.3	3	NAIC Designation Category 3.C	687,415	XXX	XXX	687,415	0.0131	9,005	0.0350	24,060	0.0500	34,371
4.4		Subtotal NAIC 3 (4.1+4.2+4.3)	3,293,005	XXX	XXX	3,293,005	XXX	28,661	XXX	76,270	XXX	109,066
5.1	4	NAIC Designation Category 4.A		XXX	XXX		0.0184		0.0430		0.0615	
5.2	4	NAIC Designation Category 4.B	121,463	XXX	XXX	121,463	0.0238	2,891	0.0555	6,741	0.0793	9,632
5.3	4	NAIC Designation Category 4.C		XXX	XXX		0.0310		0.0724		0.1034	
5.4		Subtotal NAIC 4 (5.1+5.2+5.3)	121,463	XXX	XXX	121,463	XXX	2,891	XXX	6,741	XXX	9,632
6.1	5	NAIC Designation Category 5.A		XXX	XXX		0.0472		0.0846		0.1410	
6.2	5	NAIC Designation Category 5.B		XXX	XXX		0.0663		0.1188		0.1980	
6.3	5	NAIC Designation Category 5.C		XXX	XXX		0.0836		0.1498		0.2496	
6.4		Subtotal NAIC 5 (6.1+6.2+6.3)		XXX	XXX		XXX		XXX		XXX	
7.	6	NAIC 6	3,245,000	XXX	XXX	3,245,000	0.0000		0.2370	769,065	0.2370	769,065
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)	1,168,270,172	XXX	XXX	1,168,270,172	XXX	946,154	XXX	3,633,784	XXX	6,005,545
PREFERRED STOCKS												
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)
SHORT-TERM BONDS												
18.		Exempt Obligations		XXX	XXX		0.0000		0.0000		0.0000	
19.1	1	NAIC Designation Category 1.A		XXX	XXX		0.0002		0.0007		0.0013	
19.2	1	NAIC Designation Category 1.B		XXX	XXX		0.0004		0.0011		0.0023	
19.3	1	NAIC Designation Category 1.C		XXX	XXX		0.0006		0.0018		0.0035	
19.4	1	NAIC Designation Category 1.D		XXX	XXX		0.0007		0.0022		0.0044	
19.5	1	NAIC Designation Category 1.E		XXX	XXX		0.0009		0.0027		0.0055	
19.6	1	NAIC Designation Category 1.F		XXX	XXX		0.0011		0.0034		0.0068	
19.7	1	NAIC Designation Category 1.G		XXX	XXX		0.0014		0.0042		0.0085	
19.8		Subtotal NAIC 1 (19.1+19.2+19.3+19.4+19.5+19.6+19.7)		XXX	XXX		XXX		XXX		XXX	
20.1	2	NAIC Designation Category 2.A		XXX	XXX		0.0021		0.0063		0.0105	
20.2	2	NAIC Designation Category 2.B		XXX	XXX		0.0025		0.0076		0.0127	
20.3	2	NAIC Designation Category 2.C		XXX	XXX		0.0036		0.0108		0.0180	
20.4		Subtotal NAIC 2 (20.1+20.2+20.3)		XXX	XXX		XXX		XXX		XXX	
21.1	3	NAIC Designation Category 3.A		XXX	XXX		0.0069		0.0183		0.0262	
21.2	3	NAIC Designation Category 3.B		XXX	XXX		0.0099		0.0264		0.0377	
21.3	3	NAIC Designation Category 3.C		XXX	XXX		0.0131		0.0350		0.0500	
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		0.0184		0.0430		0.0615	
22.2	4	NAIC Designation Category 4.B		XXX	XXX		0.0238		0.0555		0.0793	
22.3	4	NAIC Designation Category 4.C		XXX	XXX		0.0310		0.0724		0.1034	
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		0.0472		0.0846		0.1410	
23.2	5	NAIC Designation Category 5.B		XXX	XXX		0.0663		0.1188		0.1980	
23.3	5	NAIC Designation Category 5.C		XXX	XXX		0.0836		0.1498		0.2496	
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)		XXX	XXX		XXX		XXX		XXX	
DERIVATIVE INSTRUMENTS												
26.		Exchange Traded		XXX	XXX		0.0005		0.0016		0.0033	
27.	1	Highest Quality	(116,008)	XXX	XXX	(116,008)	0.0005	(58)	0.0016	(186)	0.0033	(383)
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	(116,008)	XXX	XXX	(116,008)	XXX	(58)	XXX	(186)	XXX	(383)
34.		Total (Lines 9 + 17 + 25 + 33)	1,168,154,164	XXX	XXX	1,168,154,164	XXX	946,096	XXX	3,633,598	XXX	6,005,162

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	7,668,464		XXX	7,668,464	0.0003	2,301	0.0007	5,368	0.0011	8,435
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)	7,668,464		XXX	7,668,464	XXX	2,301	XXX	5,368	XXX	8,435
59.		Schedule DA Mortgages			XXX		0.0034		0.0114		0.0149	
60.		Total Mortgage Loans on Real Estate (Lines 58 + 59)	7,668,464		XXX	7,668,464	XXX	2,301	XXX	5,368	XXX	8,435

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	8,931,579
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)	12,430
3.	Capitalized deferred interest and other:	
3.1	Totals, Part 1, Column 12	
3.2	Totals, Part 3, Column 11	
4.	Accrual of discount	1,157
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	37
7.	Deduct amounts received on disposals, Part 3, Column 15	1,252,956
8.	Deduct amortization of premium and mortgage interest points and commitment fees	23,783
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)	7,668,464
12.	Total valuation allowance	
13.	Subtotal (Line 11 plus 12)	7,668,464
14.	Deduct total nonadmitted amounts	
15.	Statement value of mortgages owned at end of current period (Line 13 minus Line 14)	7,668,464

SCHEDULE BA - VERIFICATION BETWEEN YEARS

Other Long-Term Invested Assets

1. Book/adjusted carrying value, December 31 of prior year	641,414
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	(19,421)
5.2 Totals, Part 3, Column 9	(19,421)
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	328
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)	621,665
12. Deduct total nonadmitted amounts	
13. Statement value at end of current period (Line 11 minus Line 12)	621,665

SCHEDULE D - VERIFICATION BETWEEN YEARS

Bonds and Stocks

1. Book/adjusted carrying value, December 31 of prior year	4,590,882,533
2. Cost of bonds and stocks acquired, Part 3, Column 7	1,112,770,861
3. Accrual of discount	1,774,345
4. Unrealized valuation increase (decrease):	
4.1. Part 1, Column 12	(283,083,836)
4.2. Part 2, Section 1, Column 15	
4.3. Part 2, Section 2, Column 13	(362,238,811)
4.4. Part 4, Column 11	(56,247,419)
.....	(701,570,066)
5. Total gain (loss) on disposals, Part 4, Column 19	(10,970,558)
6. Deduction consideration for bonds and stocks disposed of, Part 4, Column 7	934,862,240
7. Deduct amortization of premium	2,151,777
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	76,795
11. Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9+10)	4,055,949,893
12. Deduct total nonadmitted amounts	
13. Statement value at end of current period (Line 11 minus Line 12)	4,055,949,893

ANNUAL STATEMENT FOR THE YEAR 2022 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
BONDS					
Governments (Including all obligations guaranteed by governments)	1. United States	601,991,852	576,480,249	632,319,218	634,023,061
	2. Canada	6,431,244	5,944,656	6,744,826	6,225,000
	3. Other Countries	5,346,223	4,607,326	5,434,007	5,407,400
	4. Totals	613,769,319	587,032,231	644,498,051	645,655,461
U.S. States, Territories and Possessions (Direct and guaranteed)	5. Totals	2,047,311	1,852,166	2,049,654	1,700,000
U.S. Political Subdivisions of States, Territories and Possessions (Direct and guaranteed)	6. Totals	3,380,641	3,020,131	3,383,312	3,240,000
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	1,259,338,646	1,250,030,932	1,448,602,584	1,428,393,219
Industrial and Miscellaneous, SVO Identified Funds, Unaffiliated Bank Loans, Unaffiliated Certificates of Deposit and Hybrid Securities (unaffiliated)	8. United States	1,055,225,744	1,003,686,300	1,108,069,775	1,091,559,946
	9. Canada	16,360,533	15,227,144	16,471,715	16,372,531
	10. Other Countries	91,732,854	85,362,408	92,576,156	92,282,024
	11. Totals	1,163,319,131	1,104,275,852	1,217,117,646	1,200,214,501
Parent, Subsidiaries and Affiliates	12. Totals				
	13. Total Bonds	3,041,855,048	2,946,211,312	3,315,651,247	3,279,203,181
PREFERRED STOCKS					
Industrial and Miscellaneous (unaffiliated)	14. United States				
	15. Canada				
	16. Other Countries				
	17. Totals				
Parent, Subsidiaries and Affiliates	18. Totals				
	19. Total Preferred Stocks				
COMMON STOCKS					
Industrial and Miscellaneous (unaffiliated), Mutual Funds, Unit Investment Trusts, Closed-End Funds and Exchange Traded Funds	20. United States	1,014,094,845	1,014,094,845	1,111,758,642	
	21. Canada				
	22. Other Countries				
	23. Totals	1,014,094,845	1,014,094,845	1,111,758,642	
Parent, Subsidiaries and Affiliates	24. Totals				
	25. Total Common Stocks	1,014,094,845	1,014,094,845	1,111,758,642	
	26. Total Stocks	1,014,094,845	1,014,094,845	1,111,758,642	
	27. Total Bonds and Stocks	4,055,949,893	3,960,306,157	4,427,409,889	

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	119,714,214	119,714,214			
2. Cost of short-term investments acquired	101,274,867	101,274,867			
3. Accrual of discount	36,700	36,700			
4. Unrealized valuation increase (decrease)					
5. Total gain (loss) on disposals	131,840	131,840			
6. Deduct consideration received on disposals	195,944,797	195,944,797			
7. Deduct amortization of premium	1,644	1,644			
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)	25,211,180	25,211,180			
11. Deduct total nonadmitted amounts					
12. Statement value at end of current period (Line 10 minus Line 11)	25,211,180	25,211,180			

(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)	1,479,746
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	276,143,087
3.2	Section 2, Column 19	(70,490) 276,072,597
4.	SSAP No. 108 Adjustments	
5.	Total gain (loss) on termination recognized, Section 2, Column 22	(6,080,371)
6.	Considerations received/(paid) on terminations, Section 2, Column 15	(6,080,371)
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)	277,552,343
11.	Deduct nonadmitted assets	
12.	Statement value at end of current period (Line 10 minus Line 11)	277,552,343

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.....	277,552,343
2.	Part B, Section 1, Column 15 plus Part B, Section 1 Footnote - Total Ending Cash Balance	
3.	Total (Line 1 plus Line 2)	277,552,343
4.	Part D, Section 1, Column 6	278,113,964
5.	Part D, Section 1, Column 7	(561,621)
6.	Total (Line 3 minus Line 4 minus Line 5)	
		Fair Value Check
7.	Part A, Section 1, Column 16	277,552,343
8.	Part B, Section 1, Column 13	
9.	Total (Line 7 plus Line 8)	277,552,343
10.	Part D, Section 1, Column 9	278,113,964
11.	Part D, Section 1, Column 10	(561,621)
12.	Total (Line 9 minus Line 10 minus Line 11)	
		Potential Exposure Check
13.	Part A, Section 1, Column 21	5,565,630
14.	Part B, Section 1, Column 20	
15.	Part D, Section 1, Column 12	5,565,630
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	225,775,431	83,838,705	141,936,726	
2. Cost of cash equivalents acquired	3,213,387,170	1,997,190,416	1,216,196,754	
3. Accrual of discount	40,004	40,004		
4. Unrealized valuation increase (decrease)				
5. Total gain (loss) on disposals	1,062,743	1,062,743		
6. Deduct consideration received on disposals	3,268,796,917	1,997,543,582	1,271,253,335	
7. Deduct amortization of premium				
8. Total foreign exchange change in book/adjusted carrying value				
9. Deduct current year's other than temporary impairment recognized				
10. Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9)	171,468,431	84,588,286	86,880,145	
11. Deduct total nonadmitted amounts				
12. Statement value at end of current period (Line 10 minus Line 11)	171,468,431	84,588,286	86,880,145	

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