



STATE OF CONNECTICUT

INSURANCE DEPARTMENT

ORDER ADOPTING REPORT OF EXAMINATION

I, Andrew N. Mais Insurance Commissioner of the State of Connecticut, having fully considered and reviewed the Examination Report (the "Report") of **MML Bay State Life Insurance Company** (the "Company") as of December 31, 2019, do hereby adopt the findings and recommendations contained therein based on the following findings and conclusions,

TO WIT:

1. I, Andrew N. Mais, as the Insurance Commissioner of the State of Connecticut, and as such is charged with the duty of administering and enforcing the provisions of Title 38a of the Connecticut General Statutes ("CGS").
2. The Company is a domestic insurer authorized to transact the business of insurance in the State of Connecticut.
3. On May 28, 2021, the verified Report of the Company was filed with the Connecticut Insurance Department ("Insurance Department").
4. In accordance with Section 38a-14(e)(3) of the CGS, the Company was afforded a period of thirty (30) days within which to submit to the Insurance Department a written submission or rebuttal with respect to any matters contained in the Report.
5. On June 13, 2021, the Company notified the Insurance Department of certain responses and comments on certain items contained in the Report.
6. Following review of the Report, it was deemed necessary and appropriate to modify the Report. A copy of the Report is attached hereto and incorporated herein as Exhibit A.

NOW, THEREFORE, it is ordered as follows:

1. That the Report of the Company hereby is adopted as filed with the Insurance Department.
2. That the Company shall comply with all of the recommendations set forth in the Report, and that failure by the Company to so comply shall result in sanctions or administrative action as provided by Title 38a of the CGS.
3. **Section 38a-14(e)(4)(A) of the CGS requires that:**

“The secretary of the board of directors or similar governing body of the entity shall provide a copy of the report or summary to each director and shall certify to the commissioner, in writing, that a copy of the report or summary has been provided to each director.”

Please address the certification to the commissioner but send[ing] to the care/attention of William Arfanis, Supervising Examiner, of the Financial Regulation Division.

4. **Section 38a-14(e)(4)(B) of the CGS requires that:**

“Not later than one hundred twenty days after receiving the report or summary, the chief executive officer or the chief financial officer of the entity examined shall present the report or summary to the entity's board of directors or similar governing body at a regular or special meeting.”

This will be verified by **the Insurance Department** either through analysis or examination follow-up.

Dated at Hartford, Connecticut, this 16th day of June, 2021.



Andrew N. Mais
Insurance Commissioner

Exhibit A

EXAMINATION REPORT

OF THE

MML BAY STATE LIFE INSURANCE COMPANY
(NAIC # 70416)

AS OF

DECEMBER 31, 2019

BY THE

CONNECTICUT INSURANCE DEPARTMENT



MML BAY STATE LIFE INSURANCE COMPANY

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May 28, 2021

The Honorable Andrew N. Mais
Insurance Commissioner
State of Connecticut Insurance Department
153 Market Street
Hartford, CT 06103

Dear Commissioner:

In compliance with your instructions and pursuant to the requirements of Section 38a-14 of the Connecticut General Statutes (CGS), the undersigned has conducted a Financial Examination of the condition and affairs of:

MML BAY STATE LIFE INSURANCE COMPANY

(hereinafter referred to as the Company or MML), a capital stock corporation incorporated under the laws of the State of Connecticut and having its main administrative office located at 1295 State Street, Springfield, MA. The report of such examination is submitted herewith.

MML BAY STATE LIFE INSURANCE COMPANY

SCOPE OF EXAMINATION

The previous examination of the Company was conducted as of December 31, 2014. The current examination, which covers the subsequent five year period, through December 31, 2019, was conducted virtually, on a full scope, comprehensive basis, in accordance with the procedures outlined in the National Association of Insurance Commissioners (NAIC) Financial Examiners Handbook (the Handbook) by the Connecticut Insurance Department (the Department). A concurrent examination was conducted on C.M. Life Insurance Company (CML). The State of Massachusetts Division of Insurance (MADOI) also concurrently conducted a financial examination of Massachusetts Mutual Life Insurance Company (MassMutual).

As a part of the examination planning procedures, the Department reviewed the following documentation submitted by the Company:

- The 2015 through 2019 statutory-basis audit reports by KPMG, LLP (KPMG), the Company's independent certified public accountants;
- Management's Discussion and Analysis from 2015 through 2019;
- Annual Statements filed with the Department from 2015 through 2019;
- Documentation supporting internal control processes and/or testing in 2019, or earlier if applicable and available;
- Minutes of the Board of Directors (Board), Committees to the Board, custodial agreements, and other documents related to significant transactions that require prior approval, or requests for deviations from the NAIC Accounting Practices and Procedures Manual (Manual); and
- A review of the statutory audit opinions, which indicated no material concerns, with respect to financial condition or regulatory compliance issues.

A comprehensive review was made of the pre-examination memorandum and other documents provided by or submitted to the Financial Analysis Unit of the Department. Examination Jumpstart and other financial reports obtained from the NAIC database were also reviewed.

Work papers prepared by KPMG, as of December 31, 2019, in connection with their annual statutory audits, were reviewed and relied upon to the extent deemed appropriate.

We conducted our examination in accordance with the Handbook. The Handbook requires that we plan and perform the examination to evaluate the financial condition, assess corporate governance, identify current and prospective risks of the Company and evaluate system controls and procedures used to mitigate those risks. An examination also includes identifying and evaluating significant risks that could cause an insurers surplus to be materially misstated both currently and prospectively.

All accounts and activities of the Company were considered in accordance with the risk-focused examination process. This may include assessing significant estimates made by management and evaluating management's compliance with Statutory Accounting Principles. The examination does not attest to the fair presentation of the financial statements included herein. If, during the course of the examination an adjustment is identified, the impact of such adjustment will be documented separately following the Company's financial statements.

MML BAY STATE LIFE INSURANCE COMPANY

This examination report includes significant findings of fact, and general information about the insurer and its financial condition. There may be other items identified during the examination that, due to their nature (e.g., subjective conclusions, proprietary information, etc.), are not included within the examination report but separately communicated to other regulators and/or the Company.

Failure of items in the report to add to totals or for totals to agree with captioned amounts is due to rounding.

HISTORY

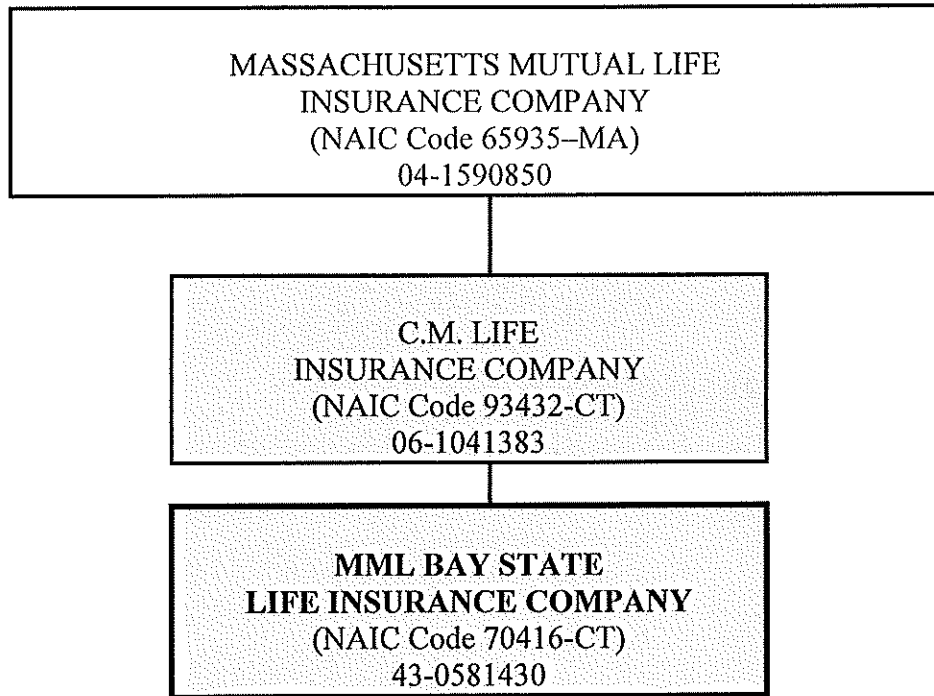
The Company was organized in 1894 under the laws of the state of Missouri. The Company was originally incorporated as a fraternal society known as Western-Funeral Benefit Association. Its name was changed to Western Life Insurance Company when it became a stipulated premium company in 1935. MassMutual, a mutual life insurance company domiciled in the Commonwealth of Massachusetts, purchased the Company on December 30, 1981, and the Company was renamed MML Bay State Life Insurance Company, effective March 29, 1982. On June 30, 1997, the Company was redomesticated from Missouri to Connecticut.

Effective August 29, 2002, the Commissioner of the Department approved the contribution by MassMutual of all its shares of the Company to CML, becoming a wholly-owned-subsidiary of CML.

MML BAY STATE LIFE INSURANCE COMPANY

ORGANIZATIONAL CHART

A partial organizational chart of the insurance holding company system at the end of the examination period is as follows:



MANAGEMENT AND CONTROL

The Company is a member of an insurance holding company system, as defined in Sections 38a-138.1 to 38a-138.1b of the Connecticut Insurance Regulations (Regulations) and Section 38a-135 of the CGS.

The bylaws of the Company provide that an annual meeting of the shareholders for the election of Directors, and for the transaction of other business, shall be held on the second Wednesday in the month of April of each year.

Special meetings of the shareholders may be called at any time, by the President or the Board, and shall be called by the President upon the written request of ten percent of the shareholders of record entitled to vote at such special meetings.

At all meetings of the shareholders, the shareholders present, in person or by proxy, representing a majority of the shares entitled to vote at the meeting, shall be sufficient to constitute a quorum for the transaction of business.

The Board shall be composed of not less than three or more than fifteen directors, with the number of directors fixed from time to time by a vote of a majority of the Board.

MML BAY STATE LIFE INSURANCE COMPANY

An annual meeting of the Board shall be held for the election of officers and for the transaction of such other business as may properly come before the meeting. Special meetings of the Board may be called by the President, and shall be called by the President upon receipt of a written request of not less than two directors. A majority of the full Board shall constitute a quorum for the transaction of business.

The Board, by the affirmative vote of a majority of the Board, may appoint from its members, such committees as it may deem advisable. Each committee shall have two or more members who shall serve at the pleasure of the Board. A majority of the designated committee members shall constitute a quorum for the transaction of business, by such committee. The officers of the Company shall be a President, a Secretary, a Treasurer, and such other officers as the Board may determine.

Directors serving the Company at December 31, 2019, were as follows:

<u>Name</u>	<u>Title and Principal Business Affiliation</u>
Roger W. Crandall	Chairman, President and Chief Executive Officer, Massachusetts Mutual Life Insurance Company
Michael R. Fanning	Head of MassMutual, U.S., Massachusetts Mutual Life Insurance Company
Elizabeth W. Chicares	Chief Financial Officer, Massachusetts Mutual Life Insurance Company
Michael J. O'Connor	General Counsel, Massachusetts Mutual Life Insurance Company

Committees of the Board

Although not explicitly stated in the corporate bylaws regarding the designation of committees to serve the Board, the Board has designated one or more committees, which exercise the powers and authority of the Board in the management of the business and affairs of the Company. Significant committees appointed by the Board, are as follows:

MassMutual Executive Committee:

The MassMutual Executive Committee (EC) has the authority to exercise the powers of the Board during intervals between the meetings of the Board as to matters, not involving the investments of the Companies. The EC works in a consulting role with respect to corporate reorganizations, mergers, major acquisitions, capital adequacy and other identified issues in advance of formal approval by the Board.

The EC shall consist of not fewer than four members. A majority of the members shall be independent as determined by the Board in accordance with the Company's Corporate Governance Guidelines. A majority of the independent members of the EC shall constitute a quorum for the conduct of business.

MML BAY STATE LIFE INSURANCE COMPANY

The EC directors serving the Company at December 31, 2019, were as follows (Chairman in bold):

Roger W. Crandall
Isabella D. Goren

Mark T. Bertolini
Jeffrey M. Leiden

H. Todd Stitzer
William T. Spitz

MassMutual Audit Committee:

The NAIC Model Audit Rule (MAR) permits the Audit Committee (AC) for an entity that controls a group of insurers to be deemed the AC for one or more of its insurance subsidiaries. The MassMutual AC is responsible for overseeing the Connecticut domiciled insurance companies' audit responsibilities under the MAR.

The purpose of the AC is to assist the Board in its oversight of the integrity of the Company's financial statements and effectiveness of internal controls over financial reporting, compliance with legal and regulatory requirements, performance and independence of the external auditor, and the performance of the internal audit function. The AC shall consist of not fewer than four members, and a majority of the AC members shall constitute a quorum for the conduct of business.

All members of the AC are independent and do not hold management positions with the parent or any Connecticut domiciled company. Each member of the AC is a member of the Board of Directors and is considered independent.

The AC directors serving the Company at December 31, 2019, were as follows (Chairman in bold):

Isabella D. Goren
William T. Spitz

Karen Bechtel
H. Todd Stitzer

James H. DeGraffenreidt, Jr.

MassMutual Investment Committee:

The MassMutual Investment Committee (IC) of the Board exercises supervision and control of the Company's investments and related financial matters. The IC approves investment policies and guidelines for the Company's general investment account and periodically reviews investment strategies and performance.

The IC shall consist of not fewer than four members, of which a majority shall be independent as determined by the Corporate Governance Guidelines. A majority of the independent members of the IC shall constitute a quorum for the conduct of business.

MML BAY STATE LIFE INSURANCE COMPANY

The IC directors serving the Company at December 31, 2019, were as follows (Chairman in bold):

William T. Spitz	Roger W. Crandall	Karen Bechtel
Isabella D. Goren	Kathleen A. Corbet	H. Todd Stitzer
Shelley Leibowitz		

MassMutual Technology & Governance Committee:

The MassMutual Technology & Governance Committee's (TGC) purpose is to consider and make recommendations to the Board concerning the appropriate composition, organization, operations, functions and procedures of the Board and the Board's committees. The TGC also oversees the Company's technology and digital initiatives, and reviews technology and digital trends, information security and cybersecurity risks that could have a significant impact on the Company's operations.

The TGC shall consist of not fewer than four members. All voting members of the TGC shall be independent as determined by the Board and in accordance with MassMutual's Corporate Governance Guidelines. A majority of TGC members shall constitute a quorum for the conduct of business.

The TGC directors serving the Company at December 31, 2019, were as follows (Chairman in bold):

Jeffrey M. Leiden	Roger W. Crandall	Mark T. Bertolini
Kathleen A. Corbet	Laura J. Sen	

At December 31, 2019, the executive officers of the Company, were as follows:

<u>Name</u>	<u>Title</u>
Roger W. Crandall	President and Chief Executive Officer
Akintokunbo Akinbajo	Secretary
Todd G. Picken	Treasurer
Douglas W. Taylor	Appointed Actuary
Elizabeth W. Chicares	Executive Vice President and Chief Financial Officer
Michael R. Fanning	Executive Vice President
Melvin T. Corbett	Executive Vice President

MML BAY STATE LIFE INSURANCE COMPANY

RELATED PARTY AGREEMENTS

The Company is a party to numerous related party transaction agreements. The material agreements are as follows:

Administrative Services Agreement:

The Company entered into an administrative services agreement with MassMutual on January 1, 1997 and amended February 28, 2007, whereby the Company pays a management and support services fee equal to the costs or deductions incurred by MassMutual with respect to such services rendered on behalf of the Company. The services provided to the Company include, but are not limited to, financial accounting and reporting, tax planning, human resources, computer and data processing, treasury and custodial services, investment management and legal support.

Tax Allocation Agreement:

The Company entered into a tax allocation agreement with MassMutual and its affiliated subsidiaries on January 1, 1997 and amended February 28, 2007, whereby the Company and the collective members included in the agreement file a life/non-life consolidated U.S. income tax return as to allocate the consolidated income tax liability of the group of companies (the Group) for purposes of determining the Group's tax earnings and profits. Pursuant to the agreement, the members of the Group agreed to reimburse MassMutual for payment of such tax liability, compensate any member for use of its losses or tax credits and provide for the allocation and payment of any refund arising from an overpayment or carry back or carry forward of losses or tax credits.

INSURANCE COVERAGES

The Company and its affiliates are insured by a Chubb Insurance Company fidelity bond covering all employees who have responsibility for handling or directing the recording of cash, securities or other assets as outlined in the coverage. The aggregate limit of liability during the bond period is \$30,000,000. The single loss limit of liability is \$15,000,000, and the single loss deductible is \$ 2,500,000. The aggregate limit of liability provides fidelity coverage above the prescribed minimum set forth by the schedule of suggested minimum amounts in the Handbook.

TERRITORY AND PLAN OF OPERATION

The Company is licensed in the District of Columbia and all states except New York. The Certificate of Incorporation (Certificate), filed in the State of Connecticut with the Secretary of State, authorizes MML to conduct the business of life and health insurance, and to engage in any lawful act or activity which corporations may be organized under Section 33-645 of the CGS.

The Company offers variable life and variable annuity products to individuals and large corporations through the general and separate accounts. The insurance products include variable life insurance and variable annuity contracts. These products are distributed through career agents, registered financial planners and brokers.

MML BAY STATE LIFE INSURANCE COMPANY

REINSURANCE

The Company, through affiliated and non-affiliated insurers, utilizes a variety of ceded reinsurance agreements.

Affiliated Reinsurance Ceded

The Company has a modified coinsurance quota-share agreement with MassMutual, effective January 1, 2000, whereby the Company cedes 100% of the premium on certain bank-owned life insurance policies.

The Company also has a stop-loss agreement with MassMutual under which the Company cedes claims, which in aggregate, exceed 1.24% of the covered volume for any year, with maximum coverage of \$25 million above the aggregate limit. The aggregate limit was not exceeded in any of the years covered under the examination period.

In addition, the Company has a quota-share agreement with MassMutual whereby the Company cedes certain plans of insurance on a yearly renewable term basis.

Non-affiliated Reinsurance Ceded

The Company has predominantly automatic yearly renewal term reinsurance agreements for its group and individual life insurance products, with various companies.

INFORMATION TECHNOLOGY CONTROLS

Baker Tilly Virchow Krause, LLP (Baker Tilly) was engaged by the MADOI to perform a risk-based assessment and review of IT General Controls (ITGC's) in accordance with NAIC requirements as outlined in the Handbook. The guidance and direction used to perform the review of the ITGC's was derived from Exhibit C Part One – Information Technology Planning Questionnaire (ITPQ) and Exhibit C - Part Two – Information Technology Work Program (collectively Exhibit C). The Company's responses to the ITPQ were evaluated, and certain controls within the IT environment were tested to assess whether the selected controls were designed effectively and were functioning properly.

The evaluation of IT controls focused on the following areas: management and organizational governance; data processing infrastructure; program change controls; system development controls; logical and physical security; and business continuity plans.

Based upon the risk-based assessment and review, the IT general controls were determined to be effective.

MML BAY STATE LIFE INSURANCE COMPANY

ACCOUNTS AND RECORDS

General ledger account balances for the Company were reconciled and traced to the amounts reported in the annual statement and audited statutory financial statements issued by KPMG. Further detailed analyses were also performed on individual accounts as deemed appropriate for this risk-focused examination.

FINANCIAL STATEMENTS

The following statements represent the Company's financial position, as filed by the Company, as of December 31, 2019. No adjustments were made to surplus as a result of the examination.

ASSETS

Account Description	Assets	Non-admitted Assets	Net Admitted Assets
Bonds	\$306,408,829		\$306,408,829
Mortgage loans on real estate:			
First liens	2,358,494		2,358,494
Cash, cash equivalents and short-term investments	60,472,068		60,472,068
Contract loans	96,749,856		96,749,856
Investment income due and accrued	4,677,029	\$23,754	4,653,275
Premiums and considerations:			
Uncollected premiums and agents' balances in the course of collection	5,376	5,786	(410)
Deferred premiums and agents' balances	(2,820,824)		(2,820,824)
Reinsurance:			
Amounts recoverable from reinsurers	1,679,373		1,679,373
Other amounts receivable under reinsurance contracts	23,073,024		23,073,024
Current federal and foreign income tax recoverable	4,497,104		4,497,104
Net deferred tax asset	4,416,826	2,291,656	2,125,170
Guaranty funds receivable or on deposit	216,242		216,242
Receivables from parent, subsidiaries and affiliates	119,105		119,105
Total assets excluding Separate Accounts, Segregated Accounts and Protected Cell Accounts	501,852,493	2,321,196	499,531,297
From Separate Accounts, Segregated Accounts and Protected Cell Accounts	4,618,254,136		4,618,254,136
Total	<u>\$5,120,106,629</u>	<u>\$2,321,196</u>	<u>\$5,117,785,433</u>

MML BAY STATE LIFE INSURANCE COMPANY

LIABILITIES, SURPLUS AND OTHER FUNDS

Account Description	Liabilities
Aggregate reserve for life contracts	\$145,926,548
Liability for deposit-type contracts	16,736,633
Contract claims: Life	10,310,284
Premiums and annuity considerations for life and accident and health contracts	2,071
Contract liabilities not included elsewhere:	
Provision for experienced rating refunds	15,210,340
Other amounts payable on reinsurance	4,266,713
Interest maintenance reserve	188,043
Commissions to agents due or accrued	25,348
Transfers to Separate Accounts due or accrued	1,934,475
Taxes, licenses and fees due or accrued	229,426
Amounts withheld or retained by company as agent or trustee	36,111
Remittances and items not allocated	1,684,667
Miscellaneous liabilities:	
Asset valuation reserve	6,285,196
Payable to parent, subsidiaries and affiliates	2,814,961
Aggregate write-ins for liabilities	426,158
Total liabilities excluding Separate Accounts	206,076,975
From Separate Accounts Statement	4,618,254,136
Total liabilities	4,824,331,111
Common capital stock	2,500,200
Gross paid in and contributed surplus	143,736,914
Unassigned funds (surplus)	147,217,208
Surplus	290,954,122
Total surplus and other funds	293,454,322
Total liabilities and surplus	<u>\$5,117,785,433</u>

MML BAY STATE LIFE INSURANCE COMPANY

SUMMARY OF OPERATIONS

Premiums and annuity considerations for life and accident and health contracts	\$2,942,222
Net investment income	18,286,919
Amortization of Interest Maintenance Reserve (IMR)	(107,133)
Commissions and expense allowances on reinsurance ceded	10,092,843
Reserve adjustments on reinsurance ceded	(72,164,971)
Miscellaneous income:	
Income from fees associated with investment management, administration and contract guarantees from Separate Accounts	65,372,796
Aggregate write-ins for miscellaneous income	(1,208,673)
Total	23,214,002
Death benefits	42,863,295
Annuity benefits	1,419,538
Disability benefits and benefits under accident and health contracts	348,832
Surrender benefits and withdrawals for life contracts	4,153,106
Interest and adjustments on contracts or deposit-type contract funds	1,024,003
Payments on supplementary contracts with life contingencies	17,201
Increase in aggregate reserves for life and accident and health contracts	2,370,605
Totals	52,196,578
Commissions on premiums, annuity considerations and deposit-type contract funds	2,087,413
General insurance expenses	9,877,560
Insurance taxes, licenses and fees, excluding federal income taxes	896,275
Increase in loading on deferred and uncollected premiums	(335)
Net transfers to or (from) Separate Accounts net of reinsurance	(57,366,935)
Aggregate write-ins for deductions	(1,834,878)
Totals	5,855,678
Net gain from operations before dividends to policyholders and federal income taxes	17,358,324
Net gain from operations after dividends to policyholders and before federal income taxes	17,358,324
Federal and foreign income taxes incurred	3,580,445
Net gain from operations after dividends to policyholders and federal income taxes and before realized capital gains or (losses)	13,777,879
Net realized capital gains (losses) less capital gains tax	(45,946)
Net income	<u>\$13,731,933</u>

MML BAY STATE LIFE INSURANCE COMPANY

CAPITAL AND SURPLUS ACCOUNT

Capital and surplus, December 31, prior year	\$309,931,856
Net income	13,731,933
Change in unrealized capital gains (losses)	20,039
Change in net deferred income tax	1,541,967
Change in nonadmitted assets	641,306
Change in asset valuation reserve	(573,233)
Dividends to stockholders	(30,000,000)
Aggregate write-ins for gains and losses in surplus	(1,839,547)
Net change in capital and surplus for the year	(16,477,534)
Capital and surplus, December 31, current year	<u>\$293,454,322</u>

<u>AGGREGATE RESERVE FOR LIFE CONTRACTS</u>	<u>\$145,926,548</u>
<u>LIABILITY FOR DEPOSIT-TYPE CONTRACTS</u>	<u>\$16,736,633</u>
<u>CONTRACT CLAIMS - LIFE</u>	<u>\$10,310,284</u>

The MADOI retained Baker Tilly to conduct an assessment of the Company's reserving, reinsurance and liquidity risks, as of December 31, 2019. Consistent with the risk focused surveillance approach to the examination, Baker Tilly relied upon analyses and tests documented by the Company and in the working papers of the Company's independent auditors. Reviews of the Company's primary lines of business were conducted to determine whether the Company's reserves were established in accordance with minimum standards for the valuation of liabilities specified in the Actuarial Guidelines and applicable Actuarial Standards of Practice. In performing the reserve review and analysis, Baker Tilly conducted the following:

- Reviewed and analyzed statutory Annual Statements during the scope period from January 1, 2015 through December 31, 2019, and inquired into subsequent years covered under the examination period;
- Met with Company management to understand the business of the Company, its procedures governing actuarial calculations, its approach to risk management, and its likely areas of financial and business risk;
- Reviewed tests performed by the Company's actuaries and its independent auditors and performed independent supplemental reserve calculations;
- Reviewed experience study information compiled and provided by the Company in support of the major assumptions used in the asset to liability analysis;
- Reviewed and analyzed the Company's Statement of Actuarial Opinion and Actuarial Memorandum; and
- Reviewed the Own Risk and Solvency Assessment (ORSA) report to understand the Company's capital forecasting under stress scenarios, economic capital model, and sufficiency of the liquidity stress testing.

MML BAY STATE LIFE INSURANCE COMPANY

Assessment of Reserve Risk

Baker Tilly was engaged by MADOI to form a conclusion regarding the risk that actual losses or other contractual payments reflected in the corresponding reserves will be greater than the carried liabilities. For some products or exposures, this risk includes a consideration that reserves plus future revenue, less expenses, will be insufficient to pay future benefits. Baker Tilly reviewed internal controls regarding the claim liability and reserving processes. Various tests were performed to verify the appropriateness of the processes and the actual calculations for the policy reserves, claim reserves and the contract claims liabilities. Baker Tilly verified that the reported reserves and liabilities are consistent with those calculated by the Company's actuaries, and the results of their analysis show that the reported liability is sufficient to cover the expected future claims.

Assessment of Reinsurance Arrangements

A review of key reinsurance treaties and other related Company descriptions of its significant ceded reinsurance agreements was performed and compared to Schedule S of the Company's annual statement. The review also included an evaluation of reinsurance reserve implications. Reinsurance agreements providing significant coverage and material reserve credits were evaluated to ensure compliance with SSAP and risk transfer requirements. The Department relied upon the testing conducted by Baker Tilly to conclude that reinsurance risk associated with the Connecticut domiciled companies are in compliance with risk transfer requirements.

Assessment of Liquidity Risk

Baker Tilly conducted testing to form a conclusion regarding the ability of the Company to meet contractual obligations as they become due because of an inability to liquidate assets or obtain adequate funding without incurring unacceptable losses. This may arise with the occurrence of an event such that the insurer will not have sufficient cash resources or liquid assets to meet its cash obligations. Based on a review of the Company's ORSA, Liquidity Framework, Actuarial Memorandum, and other analysis of MassMutual's assets and liabilities, Baker Tilly concluded that the Company's mitigation to liquidity risk appears to be adequate. The Department relied upon the testing conducted by Baker Tilly to conclude that liquidity risk associated with the Connecticut domiciled companies are also not a concern.

COMMON CAPITAL STOCK

\$2,500,200

At December 31, 2019, the Company reported 50,000 shares of common stock authorized, with 12,501 shares issued and outstanding, having a par value of \$200 per share. All of the issued shares are owned by CML, with the ultimate parent being MassMutual.

The Company paid the following dividends to its parent during the examination period:

Year	Amount	Dividend Type
2019	\$30,000,000	Ordinary

MML BAY STATE LIFE INSURANCE COMPANY

GROSS PAID IN AND CONTRIBUTED SURPLUS \$143,736,914

The balance of the account did not change during the period under review.

UNASSIGNED FUNDS (SURPLUS) \$147,217,208

The following exhibit reflects the balance of this account during the period under review:

2018	\$163,694,742
2017	\$149,069,253
2016	\$142,057,325
2015	\$ 85,063,891

Increase during the examination period primarily due to net income, and an increase in shareholders equity in conjunction with a reinsurance agreement, partially offset primarily by a change in net deferred income tax. The decrease in the account in 2019 was primarily related to the \$30M dividend paid to CML.

SEPARATE ACCOUNTS

Under the authority granted by Section 38a-459 of the CGS, the Company has established separate accounts to which it allocates certain amounts received under variable life and variable annuity business. The allocation is in accordance with the provisions of Section 38a-433 of the CGS. The Company, through its general and separate accounts, offers individual and group variable life insurance, and individual variable annuity products. Compensation is earned in the form of investment management fees, investment margin, and asset value expense charges.

The financial statement of the Separate Accounts as of December 31, 2019, was as follows:

ASSETS

Account Description	General Account Basis	Fair Value Basis	Total
Bonds	\$1,082,378,262	\$2,213,581,387	\$3,295,959,649
Common stocks		1,077,772,555	1,077,772,555
Mortgage loans on real estate	11,478,238		11,478,238
Cash and cash equivalents	43,394,916	110,042,374	153,437,263
Short-term investments	4,440,525	52,978,648	57,419,173
Derivatives	60,693		60,693
Subtotals-Cash and invested assets	1,141,752,634	3,454,374,937	4,596,127,571
Investment income due and accrued	7,550,494	6,552,421	14,102,915
Receivable for securities	5,918,858	2,104,792	8,023,650
Total	<u>\$1,155,221,986</u>	<u>\$3,463,032,150</u>	<u>\$4,618,254,136</u>

MML BAY STATE LIFE INSURANCE COMPANY

LIABILITIES AND SURPLUS

Account Description	General Account Basis	Fair Value Basis	Total
Aggregate reserve for life, annuity and accident and health contracts	\$1,159,725,795	\$3,452,854,299	\$4,612,580,094
Interest Maintenance Reserve	1,080,191		1,080,191
Changes for investment management, administration and contract guarantees due or accrued	215,859	359,444	575,303
Other transfers to general account due or accrued	(8,045,386)	5,535,608	(2,509,778)
Remittances and items not allocated	18,003	(3,072)	14,931
Derivatives	20,177		20,177
Payable for securities	2,207,347	3,959,986	6,167,333
Aggregate write-ins for liabilities		325,885	325,885
Total liabilities	1,155,221,986	3,463,032,150	4,618,254,136
Surplus			
Totals	<u>\$1,155,221,986</u>	<u>\$3,463,032,150</u>	<u>\$4,618,254,136</u>

CONCLUSION

The results of this examination disclosed that, as of December 31, 2019, the Company reported admitted assets of \$5,117,785,433, liabilities of \$4,824,331,111, and surplus of \$293,454,322. During the period under examination, admitted assets increased \$446,820,188, liabilities increased \$365,059,564, and surplus as regards policyholders increased \$81,760,624.

SUBSEQUENT EVENT

The MADOI and the Department are monitoring the impact of the COVID-19 global pandemic. The Department recognizes that COVID-19 could have a significant financial and operational impact on all of its domestic insurers, including the Company. As such, the Department will continue to monitor and share information with the Company as appropriate related to COVID-19 developments.

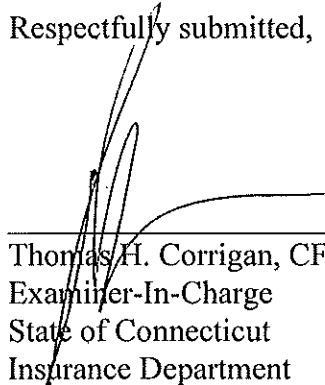
MML BAY STATE LIFE INSURANCE COMPANY

SIGNATURE

In addition to the undersigned, the following members of the State of Connecticut Insurance Department participated in the examination: William Arfanis, CFE; Wanchin Chou, FCAS, MAAA, CPCU, Robert Linnell, CFE; Lei Rao Knight, FSA, MAAA; Baker Tilly, and the MADOL.

I, Thomas H. Corrigan, CFE, solemnly swear that the foregoing report on examination is hereby represented to be a full and true statement of the condition and affairs of the subject insurer as of December 31, 2019, to the best of my information, knowledge and belief.

Respectfully submitted,



Thomas H. Corrigan, CFE
Examiner-In-Charge
State of Connecticut
Insurance Department

State of Connecticut

ss. Hartford

County of Hartford

Subscribed and sworn to before me, Ann Woznikaitis
Notary Public on this 1st day of June, 2021.



Notary Public

My Commission Expires 4/30/26

