

**Supplement dated November 18, 2021
to the Prospectus
dated May 1, 2021, as supplemented, for:**

Apex VULSM

Issued by Massachusetts Mutual Life Insurance Company

<p>THIS SUPPLEMENT MUST BE READ IN CONJUNCTION WITH YOUR PROSPECTUS. PLEASE RETAIN THIS SUPPLEMENT FOR FUTURE REFERENCE</p>
--

Effective November 1, 2021, this supplement amends certain information in the above-referenced prospectus (“Prospectus”):

- American Century Investment Management, Inc. replaced T. Rowe Price Associates, Inc. as the investment sub-adviser to the **MML Small Company Value Fund**. All references in the Prospectus to T. Rowe Price Associates, Inc. as the investment adviser to the Fund are replaced with American Century Investment Management, Inc.
- Massachusetts Financial Services Company was added as an investment sub-adviser to the **MML International Equity Fund**. All references in the Prospectus to the investment sub-adviser to the MML International Equity Fund shall include Massachusetts Financial Services Company.
- The current expenses for the MML Small Company Value Fund and MML International Equity Fund were reduced by fee waivers.

The following replaces the information for the MML Small Company Value Fund and the MML International Equity Fund in Appendix A of the Prospectus:

Fund Type	Fund and Adviser/Sub-Adviser	Current Expenses (expenses/average assets)	Average Annual Total Returns (as of 12/31/2020)		
			1 Year	5 Year	10 Year
Small/Mid-Cap Value	MML Small Company Value Fund (Class II) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> American Century Investment Management, Inc.	0.91% ⁽²⁰⁾	9.16%	12.04%	9.66%
International/Global	MML International Equity Fund (Class II) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> Harris Associates L.P. and Massachusetts Financial Services Company	0.97% ⁽¹⁶⁾	5.37%	7.15%	—

(16) The expenses in the above table reflect a written agreement by MML Advisers to waive 0.10% of its management fees through April 30, 2023. This agreement can only be terminated by mutual consent of the Board of Trustees on behalf of the Fund and MML Advisers.

(20) The expenses in the above table reflect a written agreement by MML Advisers to waive 0.15% of its management fees through April 30, 2023. This agreement can only be terminated by mutual consent of the Board of Trustees on behalf of the Fund and MML Advisers.

If you have questions about this supplement or other product questions, you may contact your registered representative, visit us online at www.MassMutual.com/contact-us, or call the MassMutual Customer Service Center at 1-800-272-2216. Our Service Center is open Monday through Friday between 8 a.m. and 8 p.m. Eastern Time.

For more information about the funds, read each fund prospectus. Prospectuses are available on our website at www.MassMutual.com.

**Supplement dated July 23, 2021 to the Prospectus
dated May 1, 2021, as supplemented, for:**

Apex VULSM

Issued by Massachusetts Mutual Life Insurance Company

<p>THIS SUPPLEMENT MUST BE READ IN CONJUNCTION WITH YOUR PROSPECTUS. PLEASE RETAIN THIS SUPPLEMENT FOR FUTURE REFERENCE</p>
--

*Effective July 1, 2021, the following replaces the information in the fee table for the **MML Dynamic Bond Fund** in Appendix A of the prospectus:*

Fund Type	Fund and Adviser/SubAdviser	Current Expenses (expenses/ average assets)	Average Annual Total Returns (as of 12/31/2020)		
			1 Year	5 Year	10 Year
Fixed Income	MML Dynamic Bond Fund (Class II) Adviser: MML Investment Advisers, LLC Sub-Adviser: DoubleLine Capital LP	0.60% ⁽¹⁹⁾	3.91%	4.35%	—

(19) The expenses reflect a written agreement by MML Advisers to waive 0.02% of its management fees through April 30, 2023. This agreement can only be terminated by mutual consent of the Board of Trustees on behalf of the Fund and MML Advisers.

If you have questions about this supplement or other product questions, you may contact your registered representative, visit us online at www.massmutual.com/contact-us, or call the MassMutual Customer Service Center at 1-800-272-2216. Our Service Center is open Monday through Friday between 8 a.m. and 8 p.m. Eastern Time.

For more information about the funds, read each fund prospectus. Prospectuses are available on our website at www.massmutual.com.

**Supplement dated July 2, 2021 to the Prospectus
dated May 1, 2021, as supplemented, for:**

Apex VULSM

Issued by Massachusetts Mutual Life Insurance Company

**THIS SUPPLEMENT MUST BE READ IN CONJUNCTION WITH YOUR PROSPECTUS.
PLEASE RETAIN THIS SUPPLEMENT FOR FUTURE REFERENCE.**

This supplement amends certain information in the above-referenced prospectus (“Prospectus”).

Glossary

- The definition of “Policy Termination” is deleted and replaced with the following:

Policy Termination. An event where your policy is no longer In Force due to the Net Surrender Value becoming too low to support your policy’s monthly charges and the Guaranteed Death Benefit Safety Test is not met, or if the total Policy Debt exceeds the Account Value less surrender charges.

Important Information You Should Consider About the Policy

- The disclosure in the **Policy Lapse** row of the **Risks** table is deleted and replaced with the following:

Your policy could terminate (or lapse) if the Net Surrender Value of the policy becomes too low to support the policy’s monthly charges and the Guaranteed Death Benefit (GDB) Safety Test is not met, or if total Policy Debt exceeds the Account Value less surrender charges. Factors that may cause your policy to lapse include: insufficient premium payments, poor investment performance, withdrawals, and unpaid loans or loan interest. If your policy lapses, you may be able to reinstate it. To reinstate your policy, you must provide us certain written materials we require as well as a premium payment sufficient to keep the policy In Force for three months after reinstatement. The death benefit will not be paid if the policy has lapsed.

This supplement further amends certain information in the Prospectus to disclose variations applicable to policies issued in the state of New York. At the time the prospectus became effective, the policy was not yet available in New York.

- The first paragraph on the cover page is deleted and replaced with the following:

This prospectus describes an individual, flexible premium, adjustable, variable life insurance policy (policy) issued by Massachusetts Mutual Life Insurance Company. In this prospectus, the “Company,” “we,” “us,” and “our” refer to Massachusetts Mutual Life Insurance Company (MassMutual). While this policy is In Force, it provides lifetime insurance protection on the Insured.

Transaction Fees

- The **Transaction Fees** table in the **Fee Tables** section is deleted and replaced with the following to reflect the addition of footnote (2) and edits to footnote (5):

The first table describes the fees and expenses that you will pay at the time you buy the policy, surrender the policy or take Account Value out of the policy.

Transaction Fees		
Charge	When Charge is Deducted	Amount Deducted
Premium Expense Charge ⁽¹⁾⁽²⁾	When you pay premium.	<p>Maximum: <u>All Coverage Years</u> 8% of each premium payment up to and including the Premium Expense Factor, and 7% of any premium payment in excess of the Premium Expense Factor.</p> <p>Minimum: 8% of each premium payment up to and including the Premium Expense Factor, and 7% of any premium payment in excess of the Premium Expense Factor.</p>
Surrender Charges ⁽²⁾⁽³⁾⁽⁴⁾⁽⁵⁾ <i>Surrender charges generally apply for the first ten policy years and the first ten years following an increase in Face Amount.</i>	Upon surrender, at the time of an elected decrease in Face Amount, or policy lapse.	<p>Maximum: \$3.08-\$50.70 per \$1,000 of Face Amount</p> <p>Current: \$3.08-\$50.70 per \$1,000 of Face Amount</p> <p>Representative Insured: \$11.25 per \$1,000 of Face Amount Male, Age 35, Non-Tobacco, Standard Risk ⁽²⁾⁽³⁾⁽⁴⁾⁽⁵⁾⁽⁶⁾</p>

(1) The Premium Expense Factor referenced in the table is used to determine premium expense charges. For the Initial Face Amount, the Premium Expense Factor is based on the issue age, gender, and risk classification of the Insured. For each increase in the Face Amount, the Premium Expense Factor is based on the age, gender, and risk classification of the Insured on the effective date of the increase. The Premium Expense Factor is shown in the policy; it will be quoted upon request before the policy is issued.

Examples of Premium Expense Factors are shown in the following table.

Premium Expense Factors Per \$1,000 of Face Amount and Applicable Premium Expense Charges (Assumptions: Non-Tobacco Risk Classifications, Premium Payments of \$20 Per \$1,000 of Face Amount)				
Charge	Male		Female	
	Age 35	Age 55	Age 35	Age 55
Premium Expense Factor Per \$1,000 of Face Amount	\$ 9.00	\$25.70	\$ 7.38	\$ 20.70
A. Current and Maximum Premium Expense Charge for premiums up to and including Premium Expense Factor (8%)	\$ 0.72	\$ 1.60	\$ 0.59	\$ 1.60
B. Current and Maximum Premium Expense Charge For Premiums Exceeding Premium Expense Factor (7%)	\$ 0.77	n/a	0.88	n/a
Current and Maximum Premium Expense Charge for the entire \$20 premium (A+B)	\$ 1.49	\$ 1.60	\$ 1.47	\$ 1.60

- (2) Maximum and current rates may vary in New York, but will not exceed the maximum rates shown. Please contact your registered representative for additional information.
- (3) For the Initial Face Amount, the rates vary by the Insured's gender, issue age, risk classification, and year of coverage. For each increase in the Face Amount, the rates are based on the age, gender, and risk classification of the Insured on the effective date of the increase and the year of coverage. The surrender charge is shown in the policy's specifications pages. The rates in this table may not be representative of the charge that a particular Owner will pay. If you would like information on the surrender charge rates for your particular situation, you can request a personalized illustration from your registered representative or by calling our Administrative Office at (800) 272-2216.
- (4) Under certain circumstances, the surrender charge may not apply when exchanging this policy for a qualifying non-variable life insurance policy offered by MassMutual or one of its subsidiaries. Please see "Surrender Charges" in the "Transaction Charges" sub-section of the "Charges and Deductions" section for additional information.

(5) Surrender charges generally apply for the first ten policy years and the first ten years following an increase in Face Amount. They will equal the first year's surrender charge multiplied by the applicable annual percentage listed in the following table. These percentages vary by issue age and may vary for policies issued in New York.

Coverage Year	%	Coverage Year	%
1	100%	7	67%
2	94 - 100%	8	50%
3	89 - 100%	9	33%
4	84 - 100%	10	17%
5	79 - 100%	11	0%
6	74 - 83%		

(6) The rates shown for the "representative insured" are first year rates only.

Periodic Charges Other than Annual Fund Operating Expenses

- The Periodic Charges Other than Annual Fund Operating Expenses table in the Fee Tables section is deleted and replaced with the following to reflect the addition of footnote (4):

The next table describes the fees and expenses that you will pay periodically during the time that you own the policy, other than Fund fees and expenses.

Periodic Charges Other than Annual Fund Operating Expenses			
Charge	When Charge is Deducted	Amount Deducted	
Base Contract Charge:			
Insurance Charge ⁽¹⁾	Monthly, on the policy's Monthly Charge Date	Maximum:	\$83.33 per \$1,000 of Insurance Risk
		Minimum:	\$0.01 per \$1,000 of Insurance Risk
		Current:	\$0.01-\$52.29 per \$1,000 of Insurance Risk
		Representative Insured:	\$0.05 per \$1,000 of Insurance Risk
		Male, Age 35, Non-Tobacco, Standard Risk, Death Benefit Option 1	
		⁽¹⁾⁽²⁾	
Substandard Risk Charge ⁽³⁾	Monthly, on the policy's Monthly Charge Date	Maximum:	\$83.33 per \$1,000 of Insurance Risk
		Current:	\$0.0025-\$83.33 per \$1,000 of Insurance Risk
Administrative Charge ⁽⁴⁾	Monthly, on the policy's Monthly Charge Date	Maximum:	\$15 per policy
		Current:	\$10 per policy
Asset Charge	Daily	Maximum:	1.25% of the policy's average daily net assets in the Separate Account
		Current:	
		Policy Years 1 – 10:	0.80% of the policy's average daily net assets in the Separate Account
		Policy Years 11+:	0.40% of the policy's average daily net assets in the Separate Account

Periodic Charges Other than Annual Fund Operating Expenses			
Charge	When Charge is Deducted	Amount Deducted	
Face Amount Charge ⁽⁴⁾⁽⁵⁾⁽⁶⁾	Monthly, on the policy's Monthly Charge Date	Maximum:	\$2.82 per \$1,000 of Face Amount
		Current:	\$0.00-\$0.83 per \$1,000 of Face Amount
		Representative Insured:	\$0.19 per \$1,000 of Face Amount
		Male, Age 35, Non-Tobacco, Standard Risk ⁽²⁾⁽⁴⁾⁽⁵⁾	
Loan Interest Rate Expense Charge ⁽⁷⁾	Reduces the interest we credit on the loaned value. We credit loan interest daily.	Maximum:	1.00% as a percentage of loaned amount
		Current:	
		Policy Years 1 – 10:	0.65% as a percentage of loaned amount
		Policy Years 11+:	0%
Optional Benefit Charges:			
Accelerated Death Benefit for Terminal Illness Rider ⁽⁸⁾	When you elect an accelerated death benefit payment	Maximum:	\$250
		Current:	\$100 – \$250
Overloan Protection Rider ⁽⁹⁾	Once, when you elect to exercise the rider	Maximum:	3.20% of Account Value ⁽⁹⁾
		Minimum:	1.00% of Account Value ⁽⁹⁾
		Representative Insured:	3.20% of Account Value
		Age 80	
Disability Benefit Rider ⁽¹⁰⁾⁽¹¹⁾	Monthly, on the policy's Monthly Charge Date	Maximum:	\$0.00-\$0.28 per \$1 of Monthly Deduction ⁽¹²⁾ plus \$0.00-\$0.04 per \$1 of Specified Benefit Amount
		Current:	\$0.00-\$0.28 per \$1 of Monthly Deduction ⁽¹²⁾ plus \$0.00-\$0.04 per \$1 of Specified Benefit Amount
		Representative Insured:	\$0.06 per \$1 of Monthly Deduction ⁽¹²⁾ plus \$0.02 per \$1 of Specified Benefit Amount
		Male, Age 35 ⁽²⁾⁽¹⁰⁾⁽¹¹⁾	
Guaranteed Insurability Rider ⁽¹⁰⁾	Monthly, on the policy's Monthly Charge Date	Maximum:	\$0.03-\$0.11 per \$1,000 of Option Amount
		Current:	\$0.03-\$0.11 per \$1,000 of Option Amount
		Representative Insured:	\$0.11 per \$1,000 of Option Amount
		Male, Age 35 ⁽¹⁰⁾	
Substitute of Insured Rider	When you elect to substitute the Insured	Maximum:	\$75
		Current:	\$75
Waiver of Monthly Charges Rider ⁽¹⁰⁾⁽¹¹⁾	Monthly, on the policy's Monthly Charge Date	Maximum:	\$0.00-\$0.28 per \$1 of Monthly Deduction ⁽¹²⁾
		Current:	\$0.00-\$0.28 per \$1 of Monthly Deduction ⁽¹²⁾
		Representative Insured:	\$0.06 per \$1 of Monthly Deduction ⁽¹²⁾
		Male, Age 35 ⁽²⁾⁽¹⁰⁾⁽¹¹⁾	

Periodic Charges Other than Annual Fund Operating Expenses

Charge	When Charge is Deducted	Amount Deducted	
Waiver of Specified Premium Rider ⁽¹⁰⁾⁽¹¹⁾	Monthly, on the policy's Monthly Charge Date	Maximum:	The Greater of \$0.00-\$0.28 per \$1 of Monthly Deduction ⁽¹²⁾ or \$0.00-\$0.04 per \$1 of Specified Monthly Premium Amount
		Current:	The Greater of \$0.00-\$0.28 per \$1 of Monthly Deduction ⁽¹²⁾ or \$0.00-\$0.04 per \$1 of Specified Monthly Premium Amount
		Representative Insured: Male, Age 35 ⁽²⁾⁽¹⁰⁾⁽¹¹⁾	The Greater of \$0.06 per \$1 of Monthly Deduction ⁽¹²⁾ or \$0.02 per \$1 of Specified Monthly Premium Amount
Adjustment to Surrender Charges Endorsement	Once, when the endorsement is attached to the policy at issue	Maximum:	\$150
		Current:	\$150

(1) The rates vary by a number of factors including, but not limited to, the Insured's gender, issue age, risk classification, and year of coverage. The rates may not be representative of the charge that a particular Owner will pay. If you would like information on the insurance charge rates for your particular situation, you can request a personalized illustration from your registered representative or by calling our Administrative Office at (800) 272-2216.

The insurance charge rates reflected in this table are for standard risks. The maximum insurance charge rates are based on the 2017 Commissioners' Standard Ordinary Ultimate, Sex-Distinct, Smoker-Distinct, Age Nearest Birthday Mortality (2017 CSO) Tables. Insurance risk is a liability of the insurance company and is equal to the difference between the death benefit and the Account Value.

- (2) The rates shown for the "representative Insured" are first year rates only.
- (3) Additional mortality fees may be assessed for risks associated with certain health conditions, occupations, aviation, avocations or driving history (i.e., substandard risks). These fees can be in the form of higher rates known as table ratings and/or flat extra charges. Table ratings and flat extra charges are components in the calculation of the insurance charges for the base policy and any applicable monthly rider insurance charges. Substandard risk charges only apply if certain factors result in an Insured having a substandard rating and will be shown in the policy's specifications pages. Note that the insurance charges, including any table ratings and/or flat extra charges, will not exceed \$83.33 per \$1,000 of insurance risk. For additional information, refer to the "Monthly Charges Against the Account Value" sub-section of the "Charges and Deductions" section of this prospectus.
- (4) Maximum and current rates may vary in New York, but will not exceed the maximum rates shown. Please contact your registered representative for additional information.
- (5) The Face Amount charge is set at issue for the Initial Face Amount and, for each increase, on the effective date of the increase. The charges will vary by the issue age, gender and risk classification of the Insured for the Initial Face Amount and, for increases, by the Insured's Attained Age, gender and risk classification on the effective date of the increase. The range of Face Amount charges reflected for coverage years 1 – 20 simply accounts for the range of issue ages for all potential Insureds. Please see the full range of rates per \$1,000 of Face Amount in the table below.

Policy Year	Maximum Rate	Current Rates
1 – 2	\$2.82	\$0.11 – \$0.83
3 – 5	\$2.44	\$0.09 – \$0.67
6 – 9	\$1.69	\$0.07 – \$0.53
10 – 20	\$1.69	\$0.00
21+	\$0.00	\$0.00

- (6) The rates shown are for standard risks and vary by the Insured's gender and age. The rates in this table may not be representative of the charge that a particular Owner will pay. If you would like information on the rates for your particular situation, you can request a personalized illustration from your registered representative or by calling our Administrative Office at (800) 272-2216.
- (7) We charge interest on policy loans, but we also credit interest on the cash value we hold as collateral on policy loans. The Loan Interest Rate Expense Charge represents the difference (cost) between the loan interest rate charged and the interest credited on loaned amounts. During the first 10 policy years, the current Loan Interest Rate Expense Charge is 0.65% of the loaned amount and 0.00% of the loaned amount in subsequent policy years. The maximum Loan Interest Rate Expense Charge is 1.00% for all policy years.
- (8) The fee we deduct may vary by state, but will not exceed \$250.
- (9) The charge is assessed once at the time the Overloan Protection Rider is exercised. The applicable percentage of Account Value varies by Attained Age beginning at 75.

- (10) *The rates shown are for standard risks and vary by the Insured's gender and Attained Age. The rates in this table may not be representative of the charge that a particular Owner will pay. If you would like information on the rates for your particular situation, you can request a personalized illustration from your registered representative or by calling our Administrative Office at (800) 272-2216.*
- (11) *For substandard risks, the rates may be increased by a multiple of 1 or 2 times the standard rates shown.*
- (12) *The policy's "monthly deduction" is the sum of the following current monthly charges: (a) administrative charge, (b) face amount charge, (c) insurance charge, and (d) any applicable rider charges.*

Charges and Deductions

- The last paragraph of **Surrender Charges** in the **Transaction Charges** subsection in the **Charges and Deductions** section is deleted and replaced with the following:

The annual percentages may vary for policies issued in New York. For all policies, the surrender charge will not exceed \$50.70 per \$1,000 of Face Amount.

Purchasing a Policy

- The first two paragraphs of the **Your Right to Return the Policy** subsection of the **Purchasing a Policy** section are deleted and replaced with the following:

You have the right to cancel the policy. If you change your mind about owning your policy, you can return the policy for a refund (Free Look), but only if you return it within a prescribed period after receiving it. This period is 10 days in all states except the following: 30 days in California, 14 days in Florida, and 20 days in North Dakota. If this policy is a replacement, this period is 30 days in all states except the following: 20 days in Delaware and North Dakota, 14 days in Florida, and 60 days in New York. If you cancel the policy, we will issue a refund. The state in which the policy is issued determines the Free Look period and the type of refund that applies. Please see your policy for details. However, the following will give you a general idea of the type of refund you may receive.

Most states require us to refund the policy's Account Value less any withdrawals and any Policy Debt. Other states (Delaware, Florida, New York, North Dakota and South Dakota) require us to refund the premium paid less withdrawals and Policy Debt. In those states your premium payment is held in the money market division of the Separate Account for the number of days in the policy's Free Look period starting from the Issue Date. If your policy requires a refund of premium, we will refund only the premium paid less withdrawals and Policy Debt, and not the greater of premium payments or the policy's Account Value.

Policy Value

- The first paragraph of the **Persistency Credit** subsection of the **Policy Value** section is deleted and replaced with the following:

Beginning on the 15th policy anniversary and on each Monthly Charge Date thereafter that your policy is In Force, we will apply a Persistency Credit to your non-loaned Account Value. The Persistency Credit will be applied if our experience is not materially different from our expectations with regards to any of the following: persistency under the policies and our investment earnings, expense and tax results, capital and reserve requirements, and profits. The payment of the Persistency Credit is not guaranteed except for policies issued in New York. Other than for policies issued in New York, we may reduce the amount of the Persistency Credit or discontinue the Persistency Credit altogether at any time. We will provide no less than 30 days' notice prior to a reduction or discontinuation of the Persistency Credit. The Persistency Credit start date is shown on the policy's specifications pages.

Other Benefits Available Under the Policy

- The **Additional Benefits** subsection in the **Other Benefits Available Under the Policy** section is edited to reflect the following:

The Chronic Illness Rider is not available in New York.

- **Overloan Protection Rider** in the **Additional Benefits** subsection of the **Other Benefits Available Under the Policy** section is edited to reflect the following:

When the rider is exercised, no further policy loans may be taken and no further loan repayments may be made, except in New York.

- The following paragraph is added to the **Right to Convert or Exchange** subsection of the **Other Benefits Available Under the Policy** section:

For policies issued in New York, the Owner has an additional right to exchange the policy for a new flexible premium adjustable life insurance policy with values that do not depend on the investment results of the Separate Account. The exchange must be elected within 18 months after the Policy Date.

Policy Termination and Reinstatement

- The third paragraph of the **Policy After You Reinstate** section in the **Policy Termination and Reinstatement** section is deleted and replaced with the following:

Except in New York, we do not reinstate Policy Debt.

If you have questions about this supplement, or other product questions, you may contact your registered representative, visit us online at www.massmutual.com/contact-us, or call our Customer Service Center Monday through Friday at (800) 272-2216, 8 a.m. - 8 p.m. Eastern Time.

For more information about the funds, read each fund prospectus. Prospectuses are available on our website at www.massmutual.com.

**Supplement dated May 28, 2021 to the Prospectuses
dated May 1, 2021 for:**

Apex VULSM

MassMutual Capital Vantage[®]

MassMutual Evolution

MassMutual Transitions SelectSM

MassMutual Transitions SelectSM II

Strategic Group Variable Universal Life[®] II

Issued by Massachusetts Mutual Life Insurance Company

**THIS SUPPLEMENT MUST BE READ IN CONJUNCTION WITH YOUR PROSPECTUS.
PLEASE RETAIN THIS SUPPLEMENT FOR FUTURE REFERENCE**

This supplement amends certain information in the above-referenced prospectuses (“Prospectuses”):

- Effective April 30, 2021, Delaware Management Company replaced Ivy Investment Management Company as the investment adviser to Ivy VIP Asset Strategy. All references in the Prospectuses to Ivy Investment Management Company as the investment adviser to Ivy VIP Asset Strategy are replaced with Delaware Management Company.

In addition, effective April 30, 2021, Macquarie Funds Management Hong Kong Limited, Macquarie Investment Management Global Limited, Macquarie Investment Management Austria Kapitalanlage AG, and Macquarie Investment Management Europe Limited were added as the investment sub-advisers to Ivy VIP Asset Strategy.

- Effective July 1, 2021, Ivy VIP Asset Strategy will be renamed Delaware Ivy VIP Asset Strategy. All references in the Prospectuses to Ivy VIP Asset Strategy will be replaced with Delaware Ivy VIP Asset Strategy.

If you have questions about this supplement, or other product questions, you may contact your registered representative, our Customer Service Center:

Executive Group Life–Strategic Group Variable Universal Life [®] II variable product	1-800-548-0073 8 a.m. - 5 p.m. Eastern Time
MassMutual Capital Vantage [®] and MassMutual Transitions Select SM II variable annuities	1-866-645-2362 7 a.m. - 7 p.m. Central Time
All other variable products	1-800-272-2216 8 a.m. - 8 p.m. Eastern Time

or visit us online at www.massmutual.com/contact-us.

For more information about the funds, read each fund prospectus. Prospectuses are available on our website at www.massmutual.com.

Apex VULSM

Issued by Massachusetts Mutual Life Insurance Company

Massachusetts Mutual Variable Life Separate Account I

This prospectus describes an individual, flexible premium, adjustable, variable life insurance policy (policy) issued by Massachusetts Mutual Life Insurance Company. In this prospectus, the “Company,” “we,” “us,” and “our” refer to Massachusetts Mutual Life Insurance Company (MassMutual). This policy is not yet available in New York. While this policy is In Force, it provides lifetime insurance protection on the Insured.

The Owner (you or your) has a number of investment choices, including a Guaranteed Principal Account (GPA) and one or more variable investment divisions (Separate Account divisions) offered through our separate account, Massachusetts Mutual Variable Life Separate Account I (Separate Account). Each Separate Account division, in turn, invests in the Funds listed in Appendix A to this prospectus.

You bear the investment risks of any premium allocated to these Separate Account divisions. The death benefit may vary and the Net Surrender Value will vary, depending on the investment performance of the Funds.

We will deliver to you copies of the current Fund prospectuses and/or summary prospectuses, which contain detailed information about the Funds. Visit MassMutual.com to access this prospectus, as well as the current Fund prospectuses and summary prospectuses, or request copies from our Administrative Office.

The policy provides life insurance protection. It is not a way to invest in mutual funds. Replacing any existing life insurance policy with this policy or financing the purchase of the policy through a loan or through withdrawals from another policy may not be to your advantage. Before purchasing, you should consider the policy in conjunction with other life insurance you own.

The policy is not (1) a bank or credit union deposit or obligation; (2) FDIC or NCUA insured; (3) insured by any federal government agency or (4) guaranteed by any bank or credit union. The policy may go down in value and provides guarantees that are subject to our financial strength and claims-paying ability.

This prospectus is not an offer to sell the policy in any jurisdiction where it is illegal to offer the policy nor is it an offer to sell the policy to anyone to whom it is illegal to offer the policy.

To learn more about the policy, you can obtain a copy of the Statement of Additional Information (SAI). The SAI is incorporated into this prospectus by reference and is legally part of this prospectus. We filed the SAI with the Securities and Exchange Commission (SEC). The SEC maintains a website (www.sec.gov) that contains the SAI, material incorporated by reference and other information regarding companies that file electronically with the SEC. For a free copy of the SAI, other information about this policy, or general inquiries, contact our Administrative Office at the address and phone number below:

MassMutual Customer Service Center
PO Box 1865
Springfield, MA 01102-1865
(800) 272-2216
(Fax) (866) 329-4527
www.MassMutual.com

You may request a free personalized illustration of death benefits, surrender values, and cash values from your registered representative or by calling our Administrative Office.

YOU MAY CANCEL YOUR POLICY WITHIN 10 DAYS OF RECEIVING IT WITHOUT PAYING FEES OR PENALTIES.

In some states, this cancellation period may be longer. Upon cancellation, you will receive either a full refund of the premiums you paid less any withdrawals and any Policy Debt or your Account Value less any withdrawals and any Policy Debt. You should review the prospectus, or consult with your investment professional, for additional information about the specific cancellation terms that apply.

Additional information about certain investment products, including variable life insurance policies, has been prepared by the Securities and Exchange Commission staff and is available at investor.gov.

The SEC has not approved or disapproved the policy or determined that this prospectus is accurate or complete. Any representation that it has is a criminal offense.

Please read this prospectus before investing. You should keep it for future reference.

Effective May 1, 2021

Table of Contents

Glossary	3	Loans	60
Important Information You Should Consider About the Policy	5	Policy Termination and Reinstatement	62
Overview of the Policy	9	Guaranteed Death Benefit (GDB) Safety Test	62
Fee Tables	11	Guaranteed Death Benefit (GDB) Measure	62
Principal Risks	16	Guaranteed Death Benefit (GDB) Monthly Factors	63
General Information about the Company, the Separate Account and the Underlying Funds	17	Grace Period	64
The Company	17	Reinstating Your Policy	64
The Guaranteed Principal Account	17	Policy After You Reinstatement	65
The Separate Account	18	Federal Income Tax Considerations	65
Underlying Funds	19	Other Information	70
Charges and Deductions	21	Other Policy Rights and Limitations	70
Transaction Charges	21	Delay of Payment of Proceeds from the GPA	71
Periodic Charges	22	Delay of Payment of Proceeds from the Separate Account	71
Monthly Charges Against the Account Value	22	Distribution	71
Daily Charges Against the Separate Account	26	Computer System, Cybersecurity and Service Disruption Risks	72
Special Circumstances	26	Legal Proceedings	73
Owner, Insured, Beneficiary	26	Unclaimed Property	73
Purchasing a Policy	27	Financial Statements	73
Purchasing a Policy	27	Appendix A – Funds Available Under the Policy	74
Your Right to Return the Policy	27	Appendix B – Hypothetical Examples of How the Guaranteed Death Benefit (GDB) Safety Test Works	80
Sending Requests in Good Order	28	Appendix C	82
Premiums	28	Hypothetical Examples of the Impact of the Minimum Death Benefit	82
Transfers	34	Hypothetical Examples of the Impact of the Account Value and Premiums	82
Limits on Frequent Trading and Market Timing Activity	34	Hypothetical Examples of Death Benefit Option Changes	83
Dollar Cost Averaging Program	35	Appendix D – Hypothetical Example – Accelerated Death Benefit for Terminal Illness Rider	85
Portfolio Rebalancing Program	36	Appendix E – Hypothetical Example – Accelerated Death Benefit for Chronic Illness Rider	87
Policy Value	37	Appendix F – Hypothetical Example – Overloan Protection Rider	88
How the Value of Your Policy is Calculated	37	Appendix G – Hypothetical Example – Substitute of Insured Rider	89
Persistence Credit	38	Appendix H – Hypothetical Example – Conversion Under the Right to Convert to a Whole Life Insurance Policy Endorsement	90
Death Benefit	39		
Minimum Death Benefit	39		
Death Benefit Options	39		
Right to Change the Death Benefit Option	40		
When We Pay Death Benefit Proceeds	41		
Interest on Death Benefit	41		
Right to Change the Face Amount	42		
Suicide	43		
Error of Age or Gender	43		
Other Benefits Available Under the Policy	44		
Additional Benefits	44		
Right to Convert or Exchange	57		
Accessing the Money in Your Policy	58		
Withdrawals	58		
Surrenders	59		

Glossary

We have tried to make this prospectus as readable and understandable for you as possible. By the very nature of the policy, however, certain technical words or terms are unavoidable. We have identified the following as some of these words or terms.

Account Value. The value of your investment in the Separate Account divisions and the GPA.

Accumulation Unit. A unit of measure that we use to determine the value in each Separate Account division.

Administrative Office. MassMutual Customer Service Center, PO Box 1865, Springfield, MA 01102-1865, (800) 272-2216, (FAX) (866) 329-4527, www.MassMutual.com

Attained Age. Insured's age on the Issue Date plus the number of completed policy years.

Face Amount. An amount used to determine the insurance coverage the policy provides while it is In Force.

Free Look. Your right to cancel the policy and receive a refund.

Fund(s). The investment entities in which the Separate Account divisions invest.

Good Order. The actual receipt by our Administrative Office of the instructions related to a request or transaction in writing (or, when permitted, by telephone or website), within the time limits, if any, along with all forms, information and supporting legal documentation we require to effect the request or transaction. This information includes, to the extent applicable: the completed application or instruction form; your policy number; the transaction amount (in dollars or percentage terms); the names and allocations to and/or from the Separate Account divisions affected by the request or transaction; the signatures of all Owners; if necessary, Social Security Number or Tax Identification number; tax certification; and any other information or supporting documentation we may require including consents, certifications and guarantees. Instructions must be complete and sufficiently clear so that we do not need to exercise any discretion to follow such instructions. We may, in our sole discretion, determine whether any particular request or transaction is in Good Order, and we reserve the right to change or waive any Good Order requirements at any time. If you have any questions, you may contact our Administrative Office before submitting the form or request.

Grace Period. A period that begins when the Net Surrender Value is not sufficient to cover monthly charges due and your policy stays In Force, during which you can pay the amount of premium needed to avoid termination.

Guaranteed Death Benefit (GDB) Safety Test. A no-lapse guarantee that allows you to keep the policy In Force until the Guaranteed Death Benefit (GDB) Period End Date regardless of the value of the policy. The GDB Period End Date is shown in the policy's specifications pages and is the policy anniversary on which the Insured reaches Attained Age 85.

Guaranteed Death Benefit (GDB) Measure. A reference measure only used to determine whether or not the GDB Safety Test is met. The GDB Measure is not used to determine the policy's Account Value or death benefit, and is not available for Monthly Charges, loans or surrenders.

In Force. Your policy has not terminated.

Insurance Risk. The difference between the death benefit and the Account Value.

Insured. The person on whose life the policy is issued.

Issue Date. The date we issue the policy. The Issue Date starts the contestability and suicide periods.

Modified Endowment Contract (MEC). A Modified Endowment Contract (MEC) is a special type of life insurance under federal income tax law. Specifically, the law prescribes a test that is intended to differentiate between policies that are purchased primarily for certain tax advantages, versus policies that are purchased primarily for death protection. MECs are still life insurance and offer tax-free death benefits and tax-deferred cash value accumulation. However, pre-death distributions (including loans) are taxed as “income first” (not cost basis first), meaning they are taxable to the extent of gain in the policy. In addition, distributions may be subject to a 10% additional tax.

Monthly Charge Date. The Policy Date and the same day of each succeeding calendar month.

Net Premium. A premium payment received in Good Order minus the premium expense charge.

Net Surrender Value. Account Value less any surrender charges and Policy Debt.

Planned Premium. The amount selected by you to be paid on a periodic basis to keep your policy In Force.

Policy Date. The day we first deduct monthly charges under the policy.

Policy Debt. All outstanding loans plus accrued interest.

Policy Debt Limit. When total Policy Debt exceeds the Account Value less surrender charges.

Policy Termination. An event where your policy is no longer In Force due to the Net Surrender Value becoming too low to support your policy’s monthly charges and the Guaranteed Death Benefit Safety Test is not met, or if the total Policy Debt exceeds the Net Surrender Value.

Separate Account Division. A variable investment division offered through our Separate Account that invests in the corresponding underlying Fund.

Valuation Date. Any day on which the net asset value of the units of each division of the Separate Account is determined. Generally, this is any date the New York Stock Exchange (NYSE), or its successor, is open for trading. A Valuation Date ends when the NYSE closes (usually 4 p.m. Eastern Time).

Written Request. A written or electronic communication or instruction in Good Order sent by you to us at our Administrative Office.

Important Information You Should Consider About the Policy

	FEES AND EXPENSES	LOCATION IN PROSPECTUS
Charges for Early Withdrawals	<p>If you surrender the policy, decrease the Face Amount, or the policy lapses in the first 10 policy years or the first 10 policy years following an increase in Face Amount, a surrender charge may apply. For the Initial Face Amount, rates are based on the Insured's issue age, gender, risk class, and coverage year. For each increase in the Face Amount, rates are based on the Insured's age, gender, risk class on the effective date of the increase, and coverage year. The surrender charge is the sum of surrender charges for the Initial Face Amount and all Face Amount increases.</p> <p>For a 35-year-old male Insured, non-tobacco user, in the standard risk classification, with an initial premium of \$100,000, \$1,000,000 Face Amount and no increases in Face Amount, upon surrender in the first policy year a charge of up to \$11,250 could be assessed.</p>	<p>Fee Tables – Transaction Fees – Surrender Charges</p> <p>Charges and Deductions – Transaction Charges – Surrender Charges</p> <p>Death Benefit – Right to Change the Face Amount</p>
Transaction Charges	<p>In addition to surrender charges, you also may be charged for other transactions.</p> <p>Premium Expense Charge. We deduct a premium expense charge from each premium you pay. The current and maximum premium expense charge is 8% of each premium payment up to and including the Premium Expense Factor, and 7% of premium over the Premium Expense Factor.</p> <p>Rider Processing Fee. We assess a one-time processing fee of up to \$250 (less in some states) when you exercise the Accelerated Death Benefit for Terminal Illness Rider and a fee of \$75 when you exercise the Substitute of Insured Rider.</p> <p>We assess a one-time charge based on the Account Value and Attained Age of the Insured when the Overloan Protection Rider is exercised.</p>	<p>Fee Tables – Transaction Fees</p> <p>Fee Tables – Periodic Charges Other than Annual Fund Operating Expenses</p> <p>Charges and Deductions – Transaction Charges</p>

FEES AND EXPENSES		LOCATION IN PROSPECTUS					
Ongoing Fees and Expenses (annual charges)	In addition to surrender charges and transaction charges, an investment in the policy is subject to certain ongoing fees and expenses, including fees and expenses covering the cost of insurance and cost of optional riders. Those fees and expenses may either be fixed or vary based on characteristics of the Insured (e.g., age, sex, and risk classification). You should view the policy's specifications pages for rates applicable to your policy.	Fee Tables – Periodic Charges Other than Annual Fund Operating Expenses					
	You also will bear fees and expenses associated with the Funds you choose, as shown below.	Charges and Deductions – Monthly Charges Against the Account Value					
	<table border="1"> <thead> <tr> <th>Annual Fee</th> <th>Min.</th> <th>Max.</th> </tr> </thead> <tbody> <tr> <td>Fund options (Fund fees and expenses)</td> <td>0.12%⁽¹⁾</td> <td>1.40%⁽¹⁾</td> </tr> </tbody> </table> <p>(1) <i>As a percentage of Fund assets.</i></p>	Annual Fee	Min.	Max.	Fund options (Fund fees and expenses)	0.12% ⁽¹⁾	1.40% ⁽¹⁾
Annual Fee	Min.	Max.					
Fund options (Fund fees and expenses)	0.12% ⁽¹⁾	1.40% ⁽¹⁾					

RISKS		LOCATION IN PROSPECTUS
Risk of Loss	You can lose money by investing in this policy.	Principal Risks – Investment Risks
Not a Short-Term Investment	This policy is not a short-term investment and is not appropriate for an investor who needs ready access to cash.	Underlying Funds
	<p>Surrender charges apply for the first 10 policy years and the first 10 policy years following an increase in Face Amount. These charges will reduce the amount payable to you if you surrender the policy during those times.</p> <p>The benefits of tax deferral also means the policy is more beneficial to investors with a long time horizon.</p>	Overview of the Policy – What is the policy, and what is it designed to do?
Risks Associated with Investment Options	An investment in this policy is subject to the risk of poor investment performance and can vary depending upon the performance of the underlying Funds you choose.	Principal Risks – Suitability
	Each investment option (including any fixed account investment option) has its own unique risks. You should review the prospectuses for the available Funds before making an investment decision.	Principal Risks – Investment Risks
Insurance Company Risks	An investment in the policy is subject to the risks related to the Depositor (MassMutual). Any obligations (including under any fixed account investment option), guarantees, or benefits of the policy are subject to the claims-paying ability of MassMutual. If MassMutual experiences financial distress, it may not be able to meet its obligations to you. More information about MassMutual, including its financial strength ratings, is available at https://www.MassMutual.com/ratings .	Underlying Funds
		General Information About the Company, the Separate Account and the Underlying Funds – The Guaranteed Principal Account

	RISKS	LOCATION IN PROSPECTUS
Policy Lapse	<p>Your policy could terminate (or lapse) if the Net Surrender Value of the policy becomes too low to support the policy's monthly charges and the Guaranteed Death Benefit (GDB) Safety Test is not met, or if total Policy Debt exceeds the Net Surrender Value. Factors that may cause your policy to lapse include: insufficient premium payments, poor investment performance, withdrawals, and unpaid loans or loan interest. If your policy lapses, you may be able to reinstate it. To reinstate your policy, you must provide us certain written materials we require as well as a premium payment sufficient to keep the policy In Force for three months after reinstatement. The death benefit will not be paid if the policy has lapsed.</p>	<p>Principal Risks – Policy Termination</p> <p>Policy Termination and Reinstatement</p>

	RESTRICTIONS	LOCATION IN PROSPECTUS
Investments	<p>Generally, you may transfer Account Value among the Separate Account divisions and the GPA, subject to certain limitations. We also offer two automated transfer programs: Dollar Cost Averaging and Portfolio Rebalancing.</p> <p>Transfers of the policy's Account Value are subject to the following conditions:</p> <ul style="list-style-type: none"> • Transfers from the GPA are limited to one per policy year and may not exceed 25% of your Account Value in the GPA (less any Policy Debt). • Transfers are not permitted from the GPA to the money market division of the Separate Account. • Transfers from a division of the Separate Account to the money market division of the Separate Account are not permitted within 90 days of any transfer from the GPA. <p>In addition, we reserve the right to reject or restrict transfers if we determine the transfers reflect frequent trading or a market timing strategy, or we are required to reject or restrict by the applicable Fund.</p> <p>MassMutual also reserves the right to remove or substitute Funds as investment options that are available under the policy.</p>	<p>Transfers</p> <p>General Information About the Company the Separate Account and the Underlying Funds – The Underlying Funds – Addition, Removal, Closure or Substitution of Funds</p>
Optional Benefits	<p>Optional benefits, such as riders, may alter the benefits or charges in your policy. Rider availability and benefits may vary by state of issue, and their election may have tax consequences. Riders may have restrictions or limitations. If you elect a particular rider, it may restrict or enhance the terms of your policy, or restrict the availability or terms of other riders.</p>	<p>Other Benefits Available Under the Policy</p>

TAXES		LOCATION IN PROSPECTUS
Tax Implications	<ul style="list-style-type: none"> • You should consult with a tax professional to determine the tax implications of an investment in and payments received under the policy. • If you purchase the policy through a qualified retirement plan, you do not receive any additional tax deferral. • Withdrawals and partial surrenders are taxed as recovery of cost basis first and income second. Loans and collateral assignments are not taxable when taken. Any gain on your policy is taxed as ordinary income. • If your policy becomes a Modified Endowment Contract or MEC, loans, collateral assignments, withdrawals, and other pre-death distributions will be taxed as income first and recovery of cost basis, second. You may have to pay a penalty tax if you take a distribution before you attain age 59½. 	Federal Income Tax Considerations

CONFLICTS OF INTEREST		LOCATION IN PROSPECTUS
Investment Professional Compensation	<p>Your registered representative may receive compensation in the form of commissions for selling the policy to you. If your registered representative is also a MassMutual insurance agent, they are also eligible for certain cash and non-cash benefits from MassMutual. Cash compensation includes bonuses and allowances based on factors such as sales, productivity and persistency (policy retention). Non-cash compensation includes various recognition items such as prizes and awards as well as attendance at, and payment of the costs associated with attendance at, conferences, seminars and recognition trips, and also includes contributions to certain individual plans such as pension and medical plans. Sales of the policy may help these registered representatives and their supervisors qualify for such benefits.</p> <p>This conflict of interest may influence your registered representative to recommend this policy over another investment.</p>	Other Information – Distribution
Exchanges	<p>Some investment professionals may have a financial incentive to offer you the policy in place of the one you own. You should only exchange your current life insurance policy if you determine, after comparing the features, fees, and risks of both policies, that it is preferable for you to purchase the new policy rather than continue to own your existing life insurance policy.</p>	None

Overview of the Policy

What is the policy, and what is it designed to do? The MassMutual Apex VULSM policy is a variable life insurance policy that provides a death benefit. The policy is designed to allow you to fund your life insurance needs through investment in a Guaranteed Principal Account (GPA) and one or more of the variable investment divisions of the Massachusetts Mutual Variable Life Separate Account I (Separate Account). The policy allows you to allocate your Net Premiums and Account Value among the various investment choices. Your Account Value will vary based on performance of the investment choices you select and the fees and charges under the policy.

In exchange for your premium payments, we will pay the beneficiary a death benefit when the Insured dies while the policy is In Force. You can select one of the three death benefit options available under the policy. Subject to certain limitations, you can change the death benefit option you selected.

Variable life insurance is designed to help meet long-term insurance needs. It is not suitable as a vehicle for short-term savings. You should not purchase the policy if you will need the premium payments in a short period of time. The policy is not intended for people who need to take early or frequent withdrawals or who intend to engage in frequent trading among the investment divisions of the Separate Account. You should consider your need for cash, time horizon for investment and financial goals before submitting an application to purchase the policy. You may want to consult your financial or tax advisor.

How are premium payments treated under the policy? When you apply for the policy, you select (within certain limitations) the Planned Premium amount and the payment frequency (annual, semiannual, quarterly, or monthly). The Planned Premium amount is based on a number of factors, including, but not limited to, the Face Amount, Insured's issue age, gender and risk classification. Generally, you determine the first premium you want to pay for the policy, but it must be at least equal to the minimum initial premium. The minimum initial premium depends on the premium frequency you choose, the policy's Initial Face Amount and death benefit option, the Insured's age, gender and risk classification, and whether the policy has any riders.

After the first premium has been paid, the policy offers premium flexibility, which allows subsequent premium payments to be paid in any amount and at any time, within certain limits. Although you must maintain sufficient Net Surrender Value to keep the policy In Force, there is no required schedule for premium payments. You should review the Premium Flexibility section of the prospectus for additional important information.

When a premium payment is received in Good Order, we deduct a premium expense charge to generally cover taxes and acquisition expenses, and the remaining amount, known as the Net Premium, is allocated among the Separate Account divisions and the GPA according to your current allocation instructions. Depending on the state in which we issue the policy, we may hold your initial Net Premium payments in the money market division until the Free Look period is completed.

Investments in your policy's Separate Account divisions are held in an account separate from the general assets of the Company. We have established a segment within the Separate Account to receive and invest premium payments for the Apex VULSM policies. Currently, the Apex VULSM segment is divided into over 50 Separate Account divisions. Each Separate Account division purchases shares in a corresponding Fund. ***Information about each corresponding Fund is provided at the back of this prospectus. Please see "Appendix A: Funds Available Under the Policy".***

Net Premium and Account Value allocated to the GPA become part of the Company's General Investment Account, which supports life insurance and annuity obligations, and are dependent on the Company's financial strength and claims-paying ability. You do not participate in the investment performance of the assets in our General Investment Account. Instead, we guarantee that amounts allocated to the GPA, in excess of Policy Debt, will earn interest at a minimum rate of 1% per year. We may credit a higher rate at our discretion.

Payment of insufficient premiums may result in the policy lapsing. Although this policy does offer a no-lapse guarantee feature, the Guaranteed Death Benefit Safety Test, there is no guarantee that the policy will remain In Force as a result of making Planned Premium payments.

Federal regulations, such as the Internal Revenue Code of 1986, as amended (IRC), place restrictions on the amount of money you may put into a life insurance contract and still meet the definition of life insurance for tax purposes. In order for a policy to meet the IRC's guidelines, either the Cash Value Accumulation Test or the Guideline Premium Test must be

chosen. If you choose the Cash Value Accumulation Test, any premium payment that would exceed its limits may only be accepted if the Insured provides us with satisfactory evidence of insurability. If you choose the Guideline Premium Test, we will refund any amount of premium payment that exceeds its limit.

What are the primary features and options that the Apex VULSM Policy offers?

- **Choice of Death Benefit Options.** The policy offers a choice of one of three death benefit options – a Level Option, Return of Account Value Option, and Return of Premium Option. Please see the “Death Benefit” sections in the Summary Prospectus and this prospectus for more information.
- **Face Amount Changes.** You may request an increase or decrease in the Face Amount. If you change your Face Amount, your policy charges, including surrender charges, will change accordingly. If the policy’s Account Value less surrender charges (or Net Surrender Value if there is Policy Debt) cannot keep the policy In Force with the requested change in Face Amount, a premium payment may be required.
- **Investment Options.** You can choose to allocate your Net Premium payments and Account Value among various investment choices. Your choices include the Separate Account divisions, each of which invests in an underlying Fund, and the Guaranteed Principal Account (GPA).
- **Surrenders and Withdrawals.** You may surrender your policy, and we will pay you its Net Surrender Value (Account Value less any surrender charges and Policy Debt). You may also withdraw a part of the Net Surrender Value. A withdrawal reduces the policy values, may reduce the Face Amount of the policy, and may increase the risk that the policy will terminate or lapse. Surrenders and withdrawals may have adverse tax consequences.
- **Loans.** You may take a loan on the policy once your Account Value exceeds the total of any surrender charges. The policy secures the loan. Taking a loan may have adverse tax consequences and will increase the risk that your policy may terminate or lapse. Interest charges will apply.
- **Transfers.** Generally, you may transfer funds among the Separate Account divisions and the GPA, subject to certain limitations. We also offer two automated transfer programs: Dollar Cost Averaging and Portfolio Rebalancing.
- **Guaranteed Death Benefit (GDB) Safety Test.** This policy offers a no-lapse guarantee, the GDB Safety Test, at no cost to you. Except as provided below, prior to the Guaranteed Death Benefit (GDB) Period End Date shown in the policy’s specifications page, your policy will not terminate or lapse, regardless of its Account Value, as long as the GDB Safety Test has been met. Even if the GDB Safety Test is met, this policy may terminate if Policy Debt exceeds the Account Value less any surrender charges that may apply (1) on a Monthly Charge Date or (2) on the Valuation Date a premium payment is received, if the policy is in the Grace Period.
- **Assignability.** Subject to our approval, you may generally assign the policy as collateral for a loan or other obligation.
- **Tax Treatment.** You are generally not taxed on the policy’s earnings until you withdraw Account Value from your policy. This is known as tax deferral.
- **Additional Rider Benefits.** There are additional benefits you may add to your policy by way of riders. An additional charge may apply if you elect a rider. The riders available with this policy are listed in the “Other Benefits Available Under the Policy” sections of the Summary Prospectus and the prospectus.
- **Persistency Credit.** Beginning on the 15th policy anniversary and on each Monthly Charge Date thereafter that your policy is In Force, we will apply a Persistency Credit to your non-loaned Account Value. The payment of the Persistency Credit is not guaranteed.

Fee Tables

The following tables describe the fees and expenses that you will pay when buying, owning, and surrendering the policy. Please refer to your policy's specifications pages for information about the specific fees you will pay each year based on the options you have elected.

The first table describes the fees and expenses that you will pay at the time you buy the policy, surrender the policy or take Account Value out of the policy.

Transaction Fees			
Charge	When Charge is Deducted	Amount Deducted	
Premium Expense Charge⁽¹⁾	When you pay premium.	Maximum:	All Coverage Years 8% of each premium payment up to and including the Premium Expense Factor, and 7% of any premium payment in excess of the Premium Expense Factor.
		Minimum:	8% of each premium payment up to and including the Premium Expense Factor, and 7% of any premium payment in excess of the Premium Expense Factor.
Surrender Charges⁽²⁾⁽³⁾⁽⁴⁾ <i>Surrender charges generally apply for the first ten policy years and the first ten years following an increase in Face Amount.</i>	Upon surrender, at the time of an elected decrease in Face Amount, or policy lapse.	Maximum:	First Coverage Year \$3.08-\$50.70 per \$1,000 of Face Amount
		Current:	\$3.08-\$50.70 per \$1,000 of Face Amount
		Representative Insured: Male, Age 35, Non-Tobacco, Standard Risk⁽²⁾⁽³⁾⁽⁴⁾⁽⁵⁾	\$11.25 per \$1,000 of Face Amount

(1) The Premium Expense Factor referenced in the table is used to determine premium expense charges. For the Initial Face Amount, the Premium Expense Factor is based on the issue age, gender, and risk classification of the Insured. For each increase in the Face Amount, the Premium Expense Factor is based on the age, gender, and risk classification of the Insured on the effective date of the increase. The Premium Expense Factor is shown in the policy; it will be quoted upon request before the policy is issued.

Examples of Premium Expense Factors are shown in the following table.

Premium Expense Factors Per \$1,000 of Face Amount and Applicable Premium Expense Charges (Assumptions: Non-Tobacco Risk Classifications, Premium Payments of \$20 Per \$1,000 of Face Amount)				
Charge	Male		Female	
	Age 35	Age 55	Age 35	Age 55
Premium Expense Factor Per \$1,000 of Face Amount	9.00	25.70	7.38	20.70
A: Current and Maximum Premium Expense Charge for premiums up to and including Premium Expense Factor (8%)	\$0.72	\$ 1.60	\$0.59	\$ 1.60

Premium Expense Factors Per \$1,000 of Face Amount and Applicable Premium Expense Charges (Assumptions: Non-Tobacco Risk Classifications, Premium Payments of \$20 Per \$1,000 of Face Amount)				
Charge	Male		Female	
	Age 35	Age 55	Age 35	Age 55
B: Current and Maximum Premium Expense Charge For Premiums Exceeding Premium Expense Factor (7%)	\$0.77	n/a	\$0.88	n/a
Current and Maximum Premium Expense Charge for the entire \$20 premium (A+B)	\$1.49	\$ 1.60	\$1.47	\$ 1.60

- (2) For the Initial Face Amount, the rates vary by the Insured's gender, issue age, risk classification, and year of coverage. For each increase in the Face Amount, the rates are based on the age, gender, and risk classification of the Insured on the effective date of the increase and the year of coverage. The surrender charge is shown in the policy's specifications pages. The rates in this table may not be representative of the charge that a particular Owner will pay. If you would like information on the surrender charge rates for your particular situation, you can request a personalized illustration from your registered representative or by calling our Administrative Office at (800) 272-2216.
- (3) Under certain circumstances, the surrender charge may not apply when exchanging this policy for a qualifying non-variable life insurance policy offered by MassMutual or one of its subsidiaries. Please see "Surrender Charges" in the "Transaction Charges" sub-section of the "Charges and Deductions" section for additional information.
- (4) Surrender charges generally apply for the first ten policy years and the first ten years following an increase in Face Amount. They will equal the first year's surrender charge multiplied by the applicable annual percentage listed in the following table. These percentages vary by issue age.

Coverage Year	%	Coverage Year	%
1	100%	7	67%
2	94 - 100%	8	50%
3	89 - 100%	9	33%
4	84 - 100%	10	17%
5	79 - 100%	11	0%
6	74 - 83%		

- (5) The rates shown for the "representative insured" are first year rates only.

The next table describes the fees and expenses that you will pay periodically during the time that you own the policy, other than Fund fees and expenses.

Periodic Charges Other than Annual Fund Operating Expenses			
Charge	When Charge is Deducted	Amount Deducted	
Base Contract Charge:			
Insurance Charge⁽¹⁾	Monthly, on the policy's Monthly Charge Date	Maximum:	\$83.33 per \$1,000 of Insurance Risk
		Minimum:	\$0.01 per \$1,000 of Insurance Risk
		Current:	\$0.01-\$52.29 per \$1,000 of Insurance Risk
		Representative Insured: Male, Age 35, Non-Tobacco, Standard Risk, Death Benefit Option 1⁽¹⁾⁽²⁾	\$0.05 per \$1,000 of Insurance Risk

Periodic Charges Other than Annual Fund Operating Expenses			
Charge	When Charge is Deducted	Amount Deducted	
Substandard Risk Charge⁽³⁾	Monthly, on the policy's Monthly Charge Date	Maximum:	\$83.33 per \$1,000 of Insurance Risk
		Current:	\$0.0025-\$83.33 per \$1,000 of Insurance Risk
Administrative Charge	Monthly, on the policy's Monthly Charge Date	Maximum:	\$15 per policy
		Current:	\$10 per policy
Asset Charge	Daily	Maximum:	1.25% of the policy's average daily net assets in the Separate Account
		Current:	
		Policy Years 1 – 10:	0.80% of the policy's average daily net assets in the Separate Account
		Policy Years 11+:	0.40% of the policy's average daily net assets in the Separate Account
Face Amount Charge⁽⁴⁾⁽⁵⁾	Monthly, on the policy's Monthly Charge Date	Maximum:	\$2.82 per \$1,000 of Face Amount
		Current:	\$0.00-\$0.83 per \$1,000 of Face Amount
		Representative Insured: Male, Age 35, Non-Tobacco, Standard Risk⁽²⁾⁽⁴⁾	\$0.19 per \$1,000 of Face Amount
Loan Interest Rate Expense Charge⁽⁶⁾	Reduces the interest we credit on the loaned value. We credit loan interest daily.	Maximum:	1.00% as a percentage of loaned amount
		Current:	
		Policy Years 1 – 10:	0.65% as a percentage of loaned amount
		Policy Years 11+:	0%

Periodic Charges Other than Annual Fund Operating Expenses			
Charge	When Charge is Deducted	Amount Deducted	
Optional Benefit Charges:			
Accelerated Death Benefit for Terminal Illness Rider⁽⁷⁾	When you elect an accelerated death benefit payment	Maximum:	\$250
		Current:	\$100 – \$250
Overloan Protection Rider⁽⁸⁾	Once, when you elect to exercise the rider	Maximum:	3.20% of Account Value ⁽⁸⁾
		Minimum:	1.00% of Account Value ⁽⁸⁾
		Representative Insured: Age 80	3.20% of Account Value
Disability Benefit Rider⁽⁹⁾⁽¹⁰⁾	Monthly, on the policy's Monthly Charge Date	Maximum:	\$0.00-\$0.28 per \$1 of Monthly Deduction ⁽¹¹⁾ plus \$0.00-\$0.04 per \$1 of Specified Benefit Amount
		Current:	\$0.00-\$0.28 per \$1 of Monthly Deduction ⁽¹¹⁾ plus \$0.00-\$0.04 per \$1 of Specified Benefit Amount
		Representative Insured: Male, Age 35⁽²⁾⁽⁹⁾⁽¹⁰⁾	\$0.06 per \$1 of Monthly Deduction ⁽¹¹⁾ plus \$0.02 per \$1 of Specified Benefit Amount
Guaranteed Insurability Rider⁽⁹⁾	Monthly, on the policy's Monthly Charge Date	Maximum:	\$0.03-\$0.11 per \$1,000 of Option Amount
		Current:	\$0.03-\$0.11 per \$1,000 of Option Amount
		Representative Insured: Male, Age 35⁽⁹⁾	\$0.11 per \$1,000 of Option Amount
Substitute of Insured Rider	When you elect to substitute the Insured	Maximum:	\$75
		Current:	\$75
Waiver of Monthly Charges Rider⁽⁹⁾⁽¹⁰⁾	Monthly, on the policy's Monthly Charge Date	Maximum:	\$0.00-\$0.28 per \$1 of Monthly Deduction ⁽¹¹⁾
		Current:	\$0.00-\$0.28 per \$1 of Monthly Deduction ⁽¹¹⁾
		Representative Insured: Male, Age 35⁽²⁾⁽⁹⁾⁽¹⁰⁾	\$0.06 per \$1 of Monthly Deduction ⁽¹¹⁾

Periodic Charges Other than Annual Fund Operating Expenses

Charge	When Charge is Deducted	Amount Deducted	
Waiver of Specified Premium Rider ⁽⁹⁾⁽¹⁰⁾	Monthly, on the policy's Monthly Charge Date	Maximum:	The Greater of \$0.00-\$0.28 per \$1 of Monthly Deduction ⁽¹¹⁾ or \$0.00-\$0.04 per \$1 of Specified Monthly Premium Amount
		Current:	The Greater of \$0.00-\$0.28 per \$1 of Monthly Deduction ⁽¹¹⁾ or \$0.00-\$0.04 per \$1 of Specified Monthly Premium Amount
		Representative Insured: Male, Age 35 ⁽²⁾⁽⁹⁾⁽¹⁰⁾	The Greater of \$0.06 per \$1 of Monthly Deduction ⁽¹¹⁾ or \$0.02 per \$1 of Specified Monthly Premium Amount
Adjustment to Surrender Charges Endorsement	Once, when the endorsement is attached to the policy at issue	Maximum:	\$150
		Current:	\$150

(1) *The rates vary by a number of factors including, but not limited to, the Insured's gender, issue age, risk classification, and year of coverage. The rates may not be representative of the charge that a particular Owner will pay. If you would like information on the insurance charge rates for your particular situation, you can request a personalized illustration from your registered representative or by calling our Administrative Office at (800) 272-2216.*

The insurance charge rates reflected in this table are for standard risks. The maximum insurance charge rates are based on the 2017 Commissioners' Standard Ordinary Ultimate, Sex-Distinct, Smoker-Distinct, Age Nearest Birthday Mortality (2017 CSO) Tables. Insurance risk is a liability of the insurance company and is equal to the difference between the death benefit and the Account Value.

(2) *The rates shown for the "representative Insured" are first year rates only.*

(3) *Additional mortality fees may be assessed for risks associated with certain health conditions, occupations, aviation, avocations or driving history (i.e., substandard risks). These fees can be in the form of higher rates known as table ratings and/or flat extra charges. Table ratings and flat extra charges are components in the calculation of the insurance charges for the base policy and any applicable monthly rider insurance charges. Substandard risk charges only apply if certain factors result in an Insured having a substandard rating and will be shown in the policy's specifications pages. Note that the insurance charges, including any table ratings and/or flat extra charges, will not exceed \$83.33 per \$1,000 of insurance risk. For additional information, refer to the "Monthly Charges Against the Account Value" sub-section of the "Charges and Deductions" section of this prospectus.*

(4) *The Face Amount charge is set at issue for the Initial Face Amount and, for each increase, on the effective date of the increase. The charges will vary by the issue age, gender and risk classification of the Insured for the Initial Face Amount and, for increases, by the Insured's Attained Age, gender and risk classification on the effective date of the increase. The range of Face Amount charges reflected for coverage years 1 – 20 simply accounts for the range of issue ages for all potential Insureds. Please see the full range of rates per \$1,000 of Face Amount in the table below.*

Policy Year	Maximum Rate	Current Rates
1 – 2	\$2.82	\$0.11 – \$0.83
3 – 5	\$2.44	\$0.09 – \$0.67
6 – 9	\$1.69	\$0.07 – \$0.53
10 – 20	\$1.69	\$0.00
21+	\$0.00	\$0.00

(5) *The rates shown are for standard risks and vary by the Insured's gender and age. The rates in this table may not be representative of the charge that a particular Owner will pay. If you would like information on the rates for your particular situation, you can request a personalized illustration from your registered representative or by calling our Administrative Office at (800) 272-2216.*

(6) *We charge interest on policy loans, but we also credit interest on the cash value we hold as collateral on policy loans. The Loan Interest Rate Expense Charge represents the difference (cost) between the loan interest rate charged and the interest credited on loaned amounts. During the first 10 policy years, the current Loan Interest Rate Expense Charge is 0.65% of the loaned amount and 0.00% of the loaned amount in subsequent policy years. The maximum Loan Interest Rate Expense Charge is 1.00% for all policy years.*

(7) *The fee we deduct may vary by state, but will not exceed \$250.*

(8) *The charge is assessed once at the time the Overloan Protection Rider is exercised. The applicable percentage of Account Value varies by Attained Age beginning at 75.*

(9) *The rates shown are for standard risks and vary by the Insured's gender and Attained Age. The rates in this table may not be representative of the charge that a particular Owner will pay. If you would like information on the rates for your particular situation, you can request a personalized illustration from your registered representative or by calling our Administrative Office at (800) 272-2216.*

(10) *For substandard risks, the rates may be increased by a multiple of 1 or 2 times the standard rates shown.*

(11) *The policy's "monthly deduction" is the sum of the following current monthly charges: (a) administrative charge, (b) face amount charge, (c) insurance charge, and (d) any applicable rider charges.*

All of the monthly charges listed in the tables above are deducted proportionately from the then current Account Values in the Separate Account and the GPA (unless you direct us to deduct monthly charges from one Separate Account division or from the GPA). The asset charge is deducted from the assets of the Separate Account only.

The next table shows the minimum and maximum total operating expenses charged by any of the Funds in which your Separate Account divisions invest that you may pay periodically during the time that you own the policy. A complete list of Funds in which the Separate Account divisions invest, including their annual expenses, may be found at the back of this document in Appendix A. More detail concerning each Fund’s fees and expenses is contained in the prospectus for each Fund.⁽¹⁾

Total Annual Fund Operating Expenses	Minimum	Maximum
(expenses are deducted from Fund assets, including management fees, distribution, and/or 12b-1 fees, and other expenses)	0.12%	1.40%

(1) *The Fund expenses used to prepare this table were provided to us by the funds. We have not independently verified such information provided to us by Funds that are not affiliated with us.*

Principal Risks

Investment Risks

The value of your policy will fluctuate with the performance of the Separate Account divisions you select. Your Separate Account divisions may decline in value or they may not perform to your expectations. You bear the investment risk of any Account Value invested in the Separate Account divisions. It is possible you could lose your entire investment.

The type of investments that a Fund company makes will also create risk. A comprehensive discussion of the risks of each of the Funds underlying the divisions of the Separate Account may be found in that Fund’s prospectus. You should read the Fund’s prospectus carefully before investing.

Suitability

Variable life insurance is designed to help meet long-term financial goals. It is not suitable as a vehicle for short-term savings. You should not purchase the policy if you will need the premium payment in a short period of time. We may restrict short-term investment strategies.

Early Surrender

If you surrender your policy, you will be subject to surrender charges during the first ten policy years and during the first ten years after an increase in the policy’s Face Amount. The surrender charge will reduce the proceeds payable to you. In some situations, it is possible that there will be little or no value in the policy after the surrender charges are deducted. An early surrender can also result in adverse tax consequences.

Withdrawals

A withdrawal will reduce your policy’s Account Value by the amount withdrawn. If the policy’s Net Surrender Value is reduced to a point where it cannot meet a monthly deduction, your policy may terminate. A withdrawal may also reduce your policy’s Face Amount and may have adverse tax consequences.

Loans

Taking a loan from your policy has several risks: (1) it may increase the risk that your policy will terminate; (2) it will have a permanent effect on your policy’s Net Surrender Value; (3) it may increase the amount of premium needed to keep the policy In Force; (4) it will reduce the death benefit proceeds; and (5) it has potential adverse tax consequences.

Policy Termination

Your policy could terminate if the Net Surrender Value of the policy becomes too low to support the policy’s monthly charges and the GDB Safety Test is not met or is no longer in effect because the policy has reached the GDB Period End Date. In addition, the policy could terminate if the total Policy Debt Limit is reached (i.e., when Policy Debt equals or

exceeds the Account Value less any surrender charges that apply: (1) on a Monthly Charge Date or (2) on the Valuation Date a premium payment is received, if the policy is in the Grace Period. Factors that may cause your policy to terminate include: insufficient premium payments, poor investment performance, withdrawals, and unpaid loans or loan interest. Poor investment performance of the Funds selected by the Owner and the deduction of policy fees and monthly charges may result in termination of the policy even if all Planned Premiums are timely paid, unless the GDB Safety Test is met. However, even if the GDB Safety Test is met, the policy can still terminate if the Policy Debt Limit is reached. Before the policy terminates, however, you will receive a Grace Period during which you will be notified in writing that your coverage may terminate unless you pay additional premium.

Limitations on Access to Cash Value

- Withdrawals are not available in the first policy year; however, full surrenders are permitted.
- We may not allow a withdrawal if it would reduce the Face Amount to less than the policy's minimum Face Amount.
- The minimum withdrawal is \$100 and the maximum withdrawal is 75% of the Net Surrender Value.
- There may be little to no cash value available for loans and withdrawals in the policy's early years.

Adverse Tax Consequences

Certain transactions (including, but not limited to, withdrawals, surrenders and loans) may lead to a taxable event. Under certain circumstances (usually if your premium payments in the first seven years or less exceed specified limits), your policy may become a "Modified Endowment Contract" (MEC). Under federal tax law, loans, collateral assignments, withdrawals, and other pre-death distributions received from a MEC policy are taxed as income first and recovery of cost basis, second. Also, distributions includible in income received before you attain age 59½ are subject to a 10% penalty tax.

Existing tax laws that benefit this policy may change at any time.

Policy Charge Increase

We have the right to increase certain policy and rider charges; however, the charges will not exceed the maximum charges identified in the fee tables. If we increase a policy or rider charge, you may need to increase the amount and/or frequency of your premiums to keep your policy In Force. We will notify the Owner of any such changes through a prospectus supplement.

General Information about the Company, the Separate Account and the Underlying Funds

The Company

MassMutual and its domestic life insurance subsidiaries provide individual and group life insurance, disability insurance, individual and group annuities and guaranteed interest contracts to individual and institutional customers in all 50 states of the U.S., the District of Columbia and Puerto Rico. Products and services are offered primarily through MassMutual's distribution channels: MassMutual Financial Advisors, Digital Direct to Consumer and Business to Business, Institutional Solutions and Workplace Solutions.

MassMutual is organized as a mutual life insurance company. MassMutual's home office is located at 1295 State Street, Springfield, Massachusetts 01111-0001.

The Guaranteed Principal Account

Net Premium and Account Value you allocate to the GPA become part of the General Investment Account of the Company. Subject to applicable law, the Company has sole discretion over the assets in its General Investment Account. The assets of our General Investment Account support our insurance and annuity obligations and are subject to our general liabilities from our business operations and to claims by our creditors. We use General Investment Account assets for many

purposes including to pay death benefits, withdrawals, surrenders, policy loans, and transfers from the GPA as well as to pay amounts we provide to you through elected additional features and guarantees that are in excess of your variable Account Value allocated to the Separate Account. We refer to our ability to meet any contractual obligations as our “claims-paying ability.”

It is important to note that there is no guarantee that we will always be able to meet our claims-paying obligations, and as with any insurance product, there are risks to purchasing this policy. For this reason, when purchasing a policy and making investment decisions, you should consider our financial strength and claims-paying ability to meet our obligations under the policy.

The General Investment Account has not been registered under the Securities Act of 1933 (1933 Act) or the 1940 Act because of exemptive and exclusionary provisions. Accordingly, neither the General Investment Account nor any interests therein are generally subject to the provisions of the 1933 Act or the 1940 Act. Disclosures regarding the GPA or the General Investment Account, however, are subject to certain generally applicable provisions of the federal securities laws relating to the accuracy and completeness of statements made in this prospectus.

You do not participate in the investment performance of the assets in our General Investment Account. Instead, we guarantee that amounts allocated to the GPA, in excess of Policy Debt, will earn interest at a minimum rate of 1% per year. We may credit a higher rate of interest at our discretion. The interest rate is declared monthly and becomes effective on the first of each calendar month. You bear the risk that no higher rates of interest will be credited.

For amounts in the GPA equal to any Policy Debt, the guaranteed minimum interest rate per year is the greater of:

- 1%; or
- the policy loan rate less the maximum loan interest rate expense charge.

You may obtain interest rate information for the GPA, including the loaned portion and the non-loaned portion, by calling our Administrative Office at the number shown on page 1 of the prospectus.

The Separate Account

The part of your premium that you invest in your policy’s Separate Account divisions is held in an account that is separate from the general assets of the Company. This account is called the Massachusetts Mutual Variable Life Separate Account I. In this prospectus we will refer to it simply as the “Separate Account.” The Company owns the assets in the Separate Account. The Separate Account will purchase equivalent shares in the corresponding Funds. Any death benefits, withdrawals, surrenders, policy loans, or transfers of Account Value from the divisions of the Separate Account will be redeemed from the corresponding Funds.

We established the Separate Account on July 13, 1988, according to the laws of the Commonwealth of Massachusetts. We registered it with the SEC as a unit investment trust under the Investment Company Act of 1940 (1940 Act).

The Separate Account exists to keep your life insurance assets separate from our other Company assets. As such, any income, gains, and losses credited to, or charged against, the Separate Account reflect only the Separate Account’s own investment experience. At no time will the Separate Account reflect the investment experience of the Company’s other assets.

We may not use the assets in the Separate Account to pay any liabilities of the Company other than those arising from the policies. We may, however, transfer to our General Investment Account any assets that exceed anticipated obligations of the Separate Account. We are required to pay, from our general assets, if necessary, all amounts promised under the Apex VULSM policies. In the event that the assets in the Separate Account exceed the liabilities, the Company may only withdraw seed capital and earned fees and charges.

We have established a segment within the Separate Account to receive and invest premium payments for the Apex VULSM policies. Currently, the Apex VULSM segment is divided into over 50 Separate Account divisions. Each Separate Account division purchases shares in a corresponding Fund. The underlying Funds are listed in the next section.

Some of the underlying Funds offered are similar to mutual funds offered in the retail marketplace. They may have the same investment objectives and portfolio managers as the retail funds. The Funds offered in the Apex VULSM policy, however, are set up exclusively for variable annuity and variable life insurance products. Their shares are not offered for sale to the general public, and their performance results will differ from the performance of the retail funds.

Owners do not invest directly into the underlying Funds. Instead, they invest in the Separate Account divisions which then purchase shares of the corresponding underlying Fund. The Separate Account owns the Fund shares; the Company owns the Separate Account.

We reserve the right, subject to compliance with applicable federal securities laws and regulations and any other federal or state law, to create separate accounts and to make certain material changes to the structure and operation of the Separate Account, including, among other things to:

- create new divisions of the Separate Account;
- create new segments of the Separate Account for any new variable life insurance products we create in the future;
- eliminate divisions of the Separate Account;
- close existing divisions of the Separate Account to allocations of new premium payments by current or new policy owners;
- combine the Separate Account or any Separate Account divisions with one or more different separate accounts or Separate Account divisions;
- transfer the assets of the Separate Account or any division of the Separate Account that we may determine to be associated with the class of contracts to which the policy belongs to another separate account or Separate Account division;
- operate the Separate Account as a management investment company under the 1940 Act or in any other form permitted by law;
- de-register the Separate Account under the 1940 Act in the event such registration is no longer required; and
- change the name of the Separate Account.

Underlying Funds

We do not recommend or endorse any particular Fund, and we do not provide investment advice. You are responsible for choosing the Funds, and the amounts allocated to each, that are appropriate for your own individual circumstances and your investment goals, financial situation, and risk tolerance. Since investment risk is borne by you, decisions regarding investment allocations should be carefully considered. Information regarding each Fund, including (i) its name; (ii) its type (e.g., money market fund, bond fund, balanced fund, etc.); (iii) its investment adviser and any sub-investment adviser; (iv) current expenses; and (v) performance is available in Appendix A to this prospectus. Please see Appendix A: Funds Available Under the Policy. In making your investment selections, we encourage you to thoroughly investigate all of the information regarding the Funds that is available to you. Each Fund has issued a prospectus that contains more detailed information about the Fund.

After you select Funds for your initial premium, you should monitor and periodically re-evaluate your allocations to determine if they are still appropriate.

You bear the risk of any decline in your policy Account Value resulting from the performance of the Funds you have chosen. You can find the prospectuses and other information about the Funds online at www.MassMutual.com/Apex. You can also request this information at no cost by calling (800) 272-2216 or sending an email request to MassMutualServiceCenter@MassMutual.com.

Addition, Removal, Closure, or Substitution of Funds

We do not guarantee that each Fund will always be available for investment through the policy. We have the right to change the Funds offered through the policy, but only as permitted by law. If the law requires, we will also get your approval and the approval of any appropriate regulatory authorities. Changes may only impact certain Owners. Examples of possible changes include: adding new Funds or Fund classes, removing existing Funds or Fund classes, closing existing Funds or Fund classes, or substituting a Fund with a different Fund. New or substitute Funds may have different fees and expenses. We will not add, remove, close, or substitute any shares attributable to your interest in a division of the Separate Account without notice to you and prior approval of the SEC, to the extent required by applicable law. We reserve the right to transfer Separate Account assets to another separate account that we determine to be associated with the class of policies to which your policy belongs.

Conflicts of Interest

The Funds available with this policy may also be available to registered separate accounts offering variable annuity and variable life products of other affiliated and unaffiliated insurance companies, as well as to the Separate Account and other separate accounts of MassMutual. Although we do not anticipate any disadvantages to these arrangements, it is possible that a material conflict may arise between the interests of the Separate Account and one or more of the other separate

accounts participating in the Funds. A conflict may occur, for example, as a result of a change in law affecting the operations of variable life and variable annuity separate accounts, differences in the voting instructions of the owners and payees and those of other insurance companies, or some other reason. In the event of a conflict of interest, we will take steps necessary to protect owners and payees, including withdrawing the Separate Account from participation in the Funds involved in the conflict or substituting shares of other Funds.

Compensation We Receive from Funds, Advisers and Sub-Advisers

Compensation We Receive from Funds

We and certain of our affiliates receive compensation from certain Funds pursuant to Rule 12b-1 under the 1940 Act. This compensation is paid out of a Fund's assets and may be as much as 0.25% of the average net assets of an underlying Fund that are attributable to the variable annuity and variable life insurance products issued by us and our affiliates that offer the particular Fund (MassMutual's variable contracts). An investment in a Fund with a 12b-1 fee will increase the cost of your investment in this policy.

Compensation We Receive from Advisers and Sub-Advisers

We and certain of our insurance affiliates also receive compensation from the advisers and sub-advisers to some of the Funds. We may use this compensation to pay expenses that we incur in promoting, issuing, distributing and administering the policy, and providing services on behalf of the Funds in our role as intermediary to the Funds. The amount of this compensation is determined by multiplying a specified annual percentage rate by the average net assets held in that Fund that are attributable to MassMutual's variable contracts. These percentage rates differ, but currently do not exceed 0.25%. Some advisers and sub-advisers pay us more than others; some advisers and sub-advisers do not pay us any such compensation.

The compensation may not be reflected in a Fund's expenses because this compensation may not be paid directly out of a Fund's assets. These payments also may be derived, in whole or in part, from the advisory fee deducted from Fund assets. Owners, through their indirect investment in the Funds, bear the costs of these advisory fees (please see the Funds' prospectuses for additional information).

In addition, we may receive fixed dollar payments from the advisers and sub-advisers to certain Funds so that the adviser and sub-adviser can participate in sales meetings conducted by MassMutual. Attending such meetings provides advisers and sub-advisers with opportunities to discuss and promote their Funds.

For a list of the Funds whose advisers currently pay such compensation, visit <https://www.MassMutual.com/privacy-policy/compensation-arrangements> or call our Administrative Office at the number shown on page 1 of this prospectus.

Compensation and Fund Selection

When selecting the Funds that will be available with MassMutual's variable contracts, we consider each Fund's investment strategy, asset class, manager's reputation, and performance. We also consider the amount of compensation that we receive from the Funds, their advisers, sub-advisers, or their distributors. The compensation that we receive may be significant and we may profit from this compensation. Additionally, we offer certain Funds through the policy at least in part because they are managed by an affiliate.

Voting Rights

We are the legal owner of the Fund shares. However, you have the right to instruct us how to vote on questions submitted to the shareholders of the Funds supporting the policy. This right is limited to the extent you are invested in those Separate Account divisions on the record date. We vote shares for which we do not receive instructions in the same proportion as the shares for which we do receive instructions. The shares held in the name of the Company and its affiliates will also be proportionally voted. This process may result in a small number of Owners controlling the vote. There is no minimum number of votes required. If we determine that we are no longer required to comply with the above, we will vote the shares in our own right.

Your right to instruct us is based on the number of shares of the Funds attributable to your policy. The number of shares of any Fund, attributable to your policy, is determined by dividing the Account Value held in that Separate Account division by \$100. Fractional votes are counted.

We will send you or, if permitted by law, make available electronically, proxy material and a form to complete giving us voting instructions.

We may, when required by state insurance regulatory authorities, disregard voting instructions, if such instructions would require shares to be voted so as to cause a change in the sub-classification or investment objective of a Fund or to approve or disapprove an investment advisory contract for the Fund. In addition, we may disregard voting instructions that would require a change in the investment policy or investment adviser of one or more of the available Funds. Our disapproval of such change must be reasonable and based on a good faith determination that the change would be contrary to state law or otherwise inappropriate, considering the Fund's objectives and purpose. If we disregard Owner voting instructions, we will advise Owners of our action and the reasons for such action.

Charges and Deductions

This section describes the charges and deductions we make under the policy to compensate us for the services and benefits we provide, costs and expenses we incur, and risks we assume. We may profit from the charges deducted, and we may use any such profits for any purpose, including payment of distribution expenses.

In addition, the Funds pay operating expenses that are deducted from the assets of the Funds. For more information about these expenses, please see the individual Fund prospectuses.

Transaction Charges

Premium Expense Charge

We deduct a premium expense charge from each premium payment you make. The premium expense charge is generally used to cover taxes assessed by a state and/or other governmental agency as well as acquisition expenses.

The current premium expense charge we deduct is 8% of premium paid up to and including the Premium Expense Factor, and 7% of premium over the Premium Expense Factor. The maximum premium expense charge we can deduct is 8% of premium up to and including the Premium Expense Factor, and 7% of premium over the Premium Expense Factor.

For the Initial Face Amount, the Premium Expense Factor is based on the issue age, gender, and risk classification of the Insured. For each increase in the Face Amount, the Premium Expense Factor is based on the age, gender, and risk classification of the Insured on the effective date of the increase. Please see footnote (1) in the "Transaction Fees" sub-section of the "Fee Tables" section for additional information.

Example:

Assume that you are a 35 year old male, non-smoker and that your policy has a Face Amount of \$200,000. The Premium Expense Factor for your policy is \$9 per \$1,000 of Face Amount or 1,800 (200 x 9).

Now assume that you make a premium payment of \$1,000. Your maximum premium expense charge is 8% of your premium payment up to and including the policy's Premium Expense Factor. Since your premium payment is less than the policy's Premium Expense Factor of 1,800, your maximum premium expense charge will be \$80 (8% x \$1,000).

If your premium payment had been \$2,000, it would have exceeded the Premium Expense Factor by \$200 (\$2,000 – 1,800). Consequently, your maximum premium expense charge would have been \$158:

- 8% of \$1,800 (\$144) plus
- 7% of \$200 (\$14).

If you have increased the policy Face Amount, the Premium Expense Factor used for this charge is the total of the Premium Expense Factors for the Initial Face Amount and for all increases.

Surrender Charges

There is a charge if you fully surrender your policy or if you decrease the Face Amount. We will also take any applicable surrender charges if your policy lapses. (Please see the "Policy Termination and Reinstatement" section for more information.) Generally, these charges will apply during:

- the first ten years of coverage; and
- the first ten years after each increase in Face Amount.

This surrender charge is also sometimes called a "deferred sales load." The charge compensates us for expenses incurred in issuing the policy, Face Amount increases, and the recovery of acquisition costs.

The surrender charge is a charge against the Account Value of the policy. The deduction is taken from the Separate Account divisions and the GPA, excluding Policy Debt, in proportion to the values in each on the effective date of the surrender, or decrease in Face Amount or lapse.

We calculate surrender charges separately for the Initial Face Amount and for each increase in the Face Amount. For the Initial Face Amount, the rates are based on the Insured's issue age, gender, risk classification, and coverage year. For each increase in the Face Amount, the rates are based on the Insured's gender, age, risk classification on the effective date of the increase, and coverage year. The surrender charge for the policy is the sum of the surrender charges for the Initial Face Amount and all Face Amount increases.

The surrender charge is equal to the first year surrender charge multiplied by the following annual percentages:

Year	%	Year	%
1	100%	7	67%
2	94 – 100%	8	50%
3	89 – 100%	9	33%
4	84 – 100%	10	17%
5	79 – 100%	11	0%
6	74 – 83%		

For all policies, the surrender charge will not exceed \$50.70 per \$1,000 of Face Amount.

Surrender Charges for Decreases in Face Amount

If you decrease your policy's Face Amount, we cancel all or a part of your Face Amount segment(s) and charge a pro-rata surrender charge that will not exceed the surrender charge associated with each decreased or cancelled segment multiplied by the proportion of that segment that is decreased.

After a Face Amount decrease, the surrender charge for a decreased segment that remains In Force is decreased proportionately. This charge provides us with a proportional compensation for expenses incurred in issuing the policy and Face Amount increases, and for the recovery of acquisition costs.

Rider Processing Fee

We will assess a one-time processing fee at the time you exercise either the Accelerated Death Benefit for Terminal Illness Rider or the Substitute of Insured Rider. The maximum processing fee for the Accelerated Death Benefit for Terminal Illness Rider is \$250 (the fee may vary by state, but will not exceed \$250) and \$75 for the Substitute of Insured Rider. Payment is due upon request to exercise the Substitute of Insured Rider; however, the fee for the Accelerated Death Benefit for Terminal Illness Rider is deducted from the accelerated benefit payment and will reduce the amount you receive.

Periodic Charges

Loan Interest Rate Expense Charge

We assess a loan interest rate expense charge against policies with outstanding loan balances. This charge represents the difference between the interest we charge on policy loans and the interest we credit on the cash value we hold as collateral for policy loans. The loan interest rate minus the loan interest expense charge is the interest rate we use to credit interest to the loaned portion of the GPA. This charge reimburses us for the ongoing expense of administering the loan.

The maximum loan interest rate expense charge is 1%. The current loan interest rate expense charge is 0.65% for policy years 1-10. Beginning in policy year 11, we intend to credit interest to loaned value based on a current loan interest rate expense charge of 0.00%. This means the interest charged on policy loans in policy year 11 and after will be equal to interest credited to loaned value on a current basis. We reserve the right to increase the loan interest rate expense charge in order to ensure your loan is not treated as a taxable distribution under federal income tax rules, which may change over time.

Monthly Charges Against the Account Value

The following charges are deducted from the Account Value on each Monthly Charge Date up to, but not including, the policy anniversary date on which the Insured reaches Attained Age 121. In some cases, the monthly charges may end sooner as stated below.

The Monthly Charge Date is the date on which monthly charges for the policy are due. The first Monthly Charge Date is the policy date, and subsequent Monthly Charge Dates are on the same day of each succeeding calendar month.

Your policy's Monthly Charge Date will be listed in the policy's specifications pages. Monthly charges are deducted from the Separate Account division(s) and the GPA in proportion to the non-loaned values in each on the date the deduction is taken.

Prior to the GDB Period End Date, if the Account Value on a Monthly Charge Date is insufficient to cover the monthly charges due, the policy will enter the Grace Period, unless the GDB Safety Test is met. If the GDB Safety Test is met, monthly charges due will be reduced to an amount equal to the Account Value. However, even if the GDB Safety Test is met, this policy may terminate if the Policy Debt limit is reached.

On and after the GDB Period End Date, this policy will remain In Force as long as the Net Surrender Value is sufficient to pay the monthly charges due. However, if the Net Surrender Value is insufficient to pay monthly charges due, the policy will enter the Grace Period and an additional premium payment will be required to keep this policy In Force. Please see the "Guaranteed Death (GDB) Benefit Safety Test" sub-section in the "Policy Termination and Reinstatement" section for additional information.

Administrative Charge and Face Amount Charge

The administrative charge and the Face Amount charge reimburse us for issuing and administering the policy, and for such activities as processing claims, maintaining records and communicating with you.

Administrative Charge

The current administrative charge is \$10 per policy, per month.

Face Amount Charge

The Face Amount charge is based on a rate per \$1,000 of the Initial Face Amount. We calculate the Face Amount charge separately for the Initial Face Amount and for each increase in the Face Amount. It is based on:

- the issue age, gender and risk classification of the Insured for the Initial Face Amount; and
- for each increase, the Insured's Attained Age, gender and risk classification at time of the increase;

and it is multiplied by the segment Face Amount. The Face Amount charge will be reduced proportionately if the Face Amount is reduced. The current Face Amount charge decreases gradually until it is discontinued in policy year 10. Please see the "Periodic Charges Other than Annual Fund Operating Expenses" table in the "Fee Tables" section for additional information.

Insurance Charge

The insurance charge reimburses us for providing you with life insurance protection. We deduct an insurance charge based on your policy's Insurance Risk. Insurance Risk is equal to the difference between the death benefit (discounted one month at the guaranteed minimum interest rate for the GPA) and the Account Value. These deductions are made by deducting Accumulation Units, proportionately, from each Separate Account division in which you have an Account Value and the GPA.

The maximum insurance charge rates associated with your policy are shown in the policy's specification pages. They are calculated using the 2017 Commissioners' Standard Ordinary Ultimate, Sex-Distinct, Smoker-Distinct, Age Nearest Birthday Mortality Tables or, for unisex rates, the 2017 Commissioners' Standard Ordinary (80) Ultimate, Smoker-Distinct, Age Nearest Birthday Mortality Table. The rates are also based on the risk classification of the person insured by the policy.

We may charge less than the maximum monthly insurance charges shown in the table(s). In this case, the monthly insurance charge rates will be based on a number of factors including, but not limited to, our expectations for future mortality, investment earnings, persistency, expense and tax results, capital and reserve requirements, and profits. The expense component of these rates is used to offset sales and issue expenses, which decrease over time. Any change in these charges will apply to all individuals in the same class.

Insurance charges for the policy will not be the same for all Owners. Your policy's actual or current insurance charge rates are based on a number of factors including, but not limited to, the Insured's issue age (and age at increase, if applicable), risk classification, and gender (unless unisex rates are used). These rates generally increase as the Insured's age increases. The rates will vary with the number of years the coverage has been In Force and with the total Face Amount of the policy.

How the Insurance Charge is Calculated

(1) If the minimum death benefit is not in effect:

We calculate the insurance charge on each Monthly Charge Date by multiplying the current insurance charge rate by a discounted Insurance Risk.

The Insurance Risk is the difference between:

- the amount of benefit available on that date, under the death benefit option in effect, discounted by the monthly equivalent of 1% per year; and
- the Account Value at the beginning of the policy month reduced by any rider charges (other than disability riders) before the monthly insurance charge is due.

The following three steps describe how we calculate the insurance charge for your policy:

Step 1: We calculate the total Insurance Risk for your policy:

- (a) We divide the amount of benefit under the death benefit option in effect that would be available at the beginning of the policy month by 1.0008295381 (which is the monthly equivalent of 1%); and
- (b) We subtract your policy's Account Value at the beginning of the policy month from the amount we calculated in Step 1(a) above.

Step 2: We allocate the Insurance Risk in proportion to the Face Amount of each segment and each increase that is In Force as of your Monthly Charge Date.

Step 3: We multiply the amount of each allocated Insurance Risk by the insurance charge rate for each coverage segment. The sum of these amounts is your insurance charge.

(2) If the minimum death benefit is in effect:

We also calculate the insurance charge on each Monthly Charge Date. However, in Step 1 we calculate the total Insurance Risk for your policy, as described in (1) above:

- (i) assuming the minimum death benefit is in effect; and then
- (ii) assuming the minimum death benefit is not in effect.

Step 2: We allocate the Insurance Risk:

- (a) calculated for (ii) in proportion to the Face Amount of each segment and each increase that's In Force as of your Monthly Charge Date; and
- (b) we subtract the risk calculated for (ii) from the risk calculated for (i) and allocate that amount to the last underwritten segment.

Step 3: We multiply the amount of each allocated Insurance Risk by the insurance charge rate for each coverage segment. The sum of these amounts is your insurance charge.

Additional Information about the Insurance Charge

We will apply any changes in the insurance charges uniformly for all Insureds of the same issue age, gender, risk classification, and whose coverage has been In Force for the same length of time. No change in insurance class or cost will occur on account of deterioration of the Insured's health after we issue the policy. We do not offer special underwriting programs for this product such as guaranteed issue or simplified issue underwriting; therefore, individuals of similar health will be classified similarly.

Because your Account Value and death benefit may vary from month to month, your insurance charge may also vary on each Monthly Charge Date. The cost of your insurance depends on the amount of Insurance Risk on your policy. Factors that may affect the Insurance Risk include:

- the amount and timing of premium payments;
- investment performance;
- fees and charges assessed;
- the addition or deletion of certain riders;
- rider charges;

- withdrawals;
- policy loans;
- changes to the Face Amount; and
- changes to the death benefit option.

Substandard Risk Charge

Additional mortality fees may be assessed for risks associated with certain health conditions, occupations, aviation, avocations or driving history (i.e., substandard risks). These fees can be in the form of higher rates known as table ratings and/or flat extra charges. Table ratings and flat extra charges are components in the calculation of the insurance charges for the base policy and any applicable monthly rider insurance charges. Substandard risk charges only apply if certain factors result in an Insured having a substandard rating and will be shown in the policy's specifications pages. Note that the insurance charges, including any table ratings and/or flat extra charges, will not exceed \$83.33 per \$1,000 of insurance risk.

Rider Charges

The charges for the following riders are deducted from the Account Value on each Monthly Charge Date: Disability Benefit Rider, Guaranteed Insurability Rider, Waiver of Monthly Charges Rider and Waiver of Specified Premium Rider.

The current charge for the Waiver of Monthly Charges Rider is \$0.00 to \$0.28 per \$1 of monthly deductions. Charges for the Disability Benefit Rider have two components. A portion of the charge is based on a current rate of \$0.00 to \$0.28 per \$1 of monthly deductions. The remainder of the charge is based on a current rate of \$0.00 to \$0.04 per \$1 of specified benefit amount. This monthly charge will continue up to, but not including, the policy anniversary date on which the Insured's Attained Age becomes 65.

The rider charge for the Waiver of Specified Premium Rider is the greater of the charge for monthly deductions or the charge for the specified monthly premium amount. If the rider charge is based on the monthly deductions, the charge is based on a current rate of \$0.00 to \$0.28 per \$1 of monthly deductions. If the rider charge is based on the specified premium amount, the charge is based on a current rate of \$0.00 to \$0.04 per \$1 of specified monthly premium amount. This monthly charge will continue up to, but not including, the policy anniversary date on which the Insured's Attained Age becomes 65.

The current charge for the Guaranteed Insurability Rider is \$0.03 to \$0.11 per \$1,000 of optional insurance coverage. This monthly charge will continue up to, but not including, the policy anniversary date on which the Insured's Attained Age becomes 46.

The rates for the Waiver of Monthly Charges Rider, Waiver of Specified Premium Rider, Disability Benefit Rider and Guaranteed Insurability Rider vary by the Insured's gender and age.

Directed Monthly Deduction Program

You may elect to have us deduct the monthly charges from one division of the Separate Account, or from the GPA, rather than from all options on a pro rata basis. This feature is called the Directed Monthly Deduction Program (DMDP).

To elect the DMDP, complete our Directed Monthly Deduction Program request form and send it to us for processing. The DMDP will continue as long as you have enough value in your selected option on a Monthly Charge Date to cover the monthly charges then due, or unless you have specified a termination date in your request form.

If you don't have sufficient Account Value to cover the monthly charges due in your selected option on any Monthly Charge Date, we will deduct the monthly charges pro rata from all investment options with Account Value. We may, at any time, modify, suspend, or terminate the DMDP without prior notification.

Daily Charges Against the Separate Account

The following charge is deducted from the Separate Account daily.

Asset Charge

The asset charge is determined on your policy's Monthly Charge Date and is based on your policy's Account Value, on that Monthly Charge Date, after the current monthly charges are deducted. The charge is applied, on a daily basis, to your value in the Separate Account only. The maximum annual asset charge is equal to the following percentages of the portion of your policy's average daily net assets that are invested in the Separate Account:

- The guaranteed charge is 1.25% for all years;
- The current charge is 0.80% in years 1-10, and drops to 0.40% in year 11 and later.

The asset charge compensates us for the risks and expenses involved in issuing and administering life insurance protection.

If the asset charge is not sufficient to cover the risks and expenses involved in issuing and administering the policy, we will bear the loss. If the amount of the charge is more than sufficient to cover those risks and expenses, we will make a profit on the charge. We may use this profit for any purpose, including the payment of marketing and distribution expenses for the policy.

The Separate Account purchases shares of the Funds at net asset value. The net asset value of each Fund reflects expenses already deducted from the assets of the Fund. Such expenses include investment management fees and other expenses and may include acquired Fund fees and expenses. For some Funds, expenses will also include 12b-1 fees to cover distribution and/or certain service expenses. When you elect a Fund as an investment choice, that Fund's expenses will increase the cost of your investment in the policy. Please see each Fund's prospectus for more information regarding these expenses.

Special Circumstances

There may be special circumstances that result in sales or administrative expenses or Insurance Risks that are different than those normally associated with this policy. Under such circumstances, we may vary the charges and other terms of the policies; however, the charges will not exceed the maximum charges identified in the fee tables. We will make these variations only in accordance with uniform rules we establish.

Owner, Insured, Beneficiary

Owner

The Owner is the person who will generally make the choices that determine how the policy operates while it is In Force. In California, the policy is not available for purchase by anyone over age 59. You name the Owner in the application. However, the Owner may be changed by Written Request received in Good Order at our Administrative Office while the policy is In Force; therefore, the Owner is the person we have listed as such in our records. Generally, the change of Owner will take effect as of the date the Written Request is signed. However, in certain states you may not change Owners without our approval. We will refuse or accept any requested change of Owner on a non-discriminatory basis. Please see your policy. Each change will be subject to any payment we made or other action we took before receiving the owner designation form in Good Order. When we use the terms "you" or "your," in this prospectus, we are referring to the Owner.

The sale of your policy to an unrelated investor, sometimes called a viatical or a life settlement, typically has transaction costs that may reduce the value of your estate. Discuss the benefits and risks of selling your life insurance policy with your registered representative and estate planner before you enter into a life settlement. Such a sale may also have adverse tax consequences. Please see "Sales to Third Parties" in the "Federal Income Tax Considerations" section for additional information.

Insured

The Insured is the person on whose life the policy is issued. The Owner must have an insurable interest in the life of the Insured in order for the policy to be valid under state law and for the policy to be considered life insurance for income tax purposes. If the policy does not comply with the insurable interest requirements of the issue state at the time of issue, the policy may be deemed void from the beginning. As a result, the policy would not provide the intended benefits. It is the responsibility of the Owner to determine whether proper insurable interest exists at the time of policy issuance.

You name the Insured in the application for the policy. We will not issue a policy for an insured who is beyond age 75. Before issuing a policy, we will require evidence to determine the insurability of the Insured. This will usually require a medical examination.

Beneficiary

The beneficiary is the person you name in the application to receive any death benefit. You may name different classes of beneficiaries, such as primary and secondary. These classes will set the order of payment. There may be more than one beneficiary in a class. Unless an irrevocable beneficiary has been named, you can change the beneficiary at any time before the Insured dies by sending a Written Request in Good Order to our Administrative Office. The Owner must have the consent of an irrevocable beneficiary to change the beneficiary. Generally, the change will take effect as of the date your request is signed. Each change will be subject to any payment we made or other action we took before receiving the Written Request in Good Order.

If no beneficiary is living or in existence when the Insured dies, we will pay you the death benefit unless the policy states otherwise. If you are deceased, the death benefit will be paid to your estate.

Purchasing a Policy

Purchasing a Policy

To purchase a policy you must send us a completed application. The minimum Initial Face Amount of a policy is currently \$50,000. The Owner selects, within our limits, the policy's "Face Amount." The Face Amount is used to determine the amount of insurance coverage the policy provides while it is In Force. The "Initial Face Amount" is the Face Amount on the Policy Date. It is listed on the first page of your policy.

We determine whether to accept or reject the application for the policy and the Insured's risk classification. Coverage under the policy becomes effective on the date the last of all premiums due and necessary documents are received in Good Order at our Administrative Office.

Policies generally are issued with rates that vary based on a number of factors including, but not limited to, the gender of the Insured. In some situations, however, we may issue unisex policies (policies whose rates do not vary by the gender of the Insured). Policies issued in Montana are unisex, and policies issued as part of an employee benefit plan may be unisex. References in this prospectus to sex-distinct policy values are not applicable to unisex policies.

Your Right to Return the Policy

You have the right to cancel the policy. If you change your mind about owning your policy, you can return the policy for a refund (Free Look), but only if you return it within a prescribed period after receiving it. This period is 10 days in all states except the following: 30 days in California, 14 days in Florida, and 20 days in North Dakota. If this policy is a replacement, this period is 30 days in all states except the following: 20 days in Delaware and North Dakota, and 14 days in Florida. If you cancel the policy, we will issue a refund. The state in which the policy is issued determines the Free Look period and the type of refund that applies. Please see your policy for details. However, the following will give you a general idea of the type of refund you may receive.

Most states require us to refund the policy's Account Value less any withdrawals and any Policy Debt. Other states (Delaware, Florida, North Dakota and South Dakota) require us to refund the premium paid less withdrawals and Policy Debt. In those states your premium payment is held in the money market division of the Separate Account for the number of days in the policy's Free Look period starting from the Issue Date. If your policy requires a refund of premium, we will refund only the premium paid less withdrawals and Policy Debt, and not the greater of premium payments or the policy's Account Value.

Additionally, under certain circumstances such as mistake of fact, we may reissue your policy with different features after the Free Look period expires. Please contact your registered representative for details if you feel your policy should be reissued.

To cancel the policy, return it to us at our Administrative Office, to the registered representative who sold the policy, or to one of our agency offices.

Sending Requests in Good Order

From time to time you may want to submit a Written Request for a change of beneficiary, a transfer, or some other action. A Written Request is a written or electronic communication or instruction in Good Order sent by the Owner to, and received by MassMutual at, our Administrative Office. We may allow requests to be submitted by telephone, fax, website, or other electronic media for certain transactions. Telephone, fax, email, or internet transactions may not always be available. Telephone, fax, and computer systems can experience outages or slowdowns for a variety of reasons. These outages or slowdowns may prevent or delay our receipt of your request. We may make these additional methods available at our discretion. They may be suspended or discontinued at any time without notice. Not all transaction types can be requested by telephone, website or other electronic media.

Premiums

The Planned Premium amount you pay is based on a number of factors including, but not limited to:

- the Face Amount;
- the Insured's gender;
- the Insured's issue age;
- the Insured's risk classification;
- policy charges;
- premium frequency;
- the death benefit option; and
- whether or not any riders apply to the policy.

First Premium

Generally, you determine the first premium you want to pay for the policy, but it must be at least equal to the minimum initial premium. The minimum initial premium depends on:

- your chosen premium frequency;
- the policy's Initial Face Amount and death benefit option;
- the issue age, gender, and risk classification of the Insured; and
- any riders on the policy.

Generally, you will give your first premium payment or payment instructions to the registered representative who sold you the policy. The currently available methods of payment for your first premium include:

- authorizing the Company to draft the initial premium electronically from your bank account. You initiate the electronic payment for the initial premium by completing the appropriate administrative form;
- check; and
- wire transfer. For instructions on how to make a premium payment by wire transfer, please call our Administrative Office at (800) 272-2216.

Please note that your initial premium is applied to your policy when the payment is received in Good Order at our Administrative Office and after the policy has been issued.

Planned Premiums

When applying for the policy, you select (within the policy limitations) the Planned Premium and payment frequency (annual, semiannual, quarterly, or monthly).

We will send premium notices for the Planned Premium based on the payment frequency in effect. If a Planned Premium payment is not made, the policy will not necessarily terminate. Conversely, making Planned Premium payments does not necessarily guarantee the policy will remain In Force. To keep the policy In Force, it must have sufficient Account Value or satisfy the GDB Safety Test until the GDB Period End Date. However, if the Net Surrender Value is insufficient to pay monthly charges due after the GDB Period End Date, the policy will enter the Grace Period and an additional premium payment will be required to keep it In Force. Please see the "Policy Termination and Reinstatement" section. We will send a notice of any premium needed to prevent termination of the policy.

Before making any changes to the timing or frequency of premium payments, you should speak to your registered representative to determine the impact on your policy.

To change the amount and frequency of Planned Premiums, you may contact our Administrative Office.

If you change the frequency of your Planned Premiums, your policy may be at risk of lapsing because we do not bill for fractional payment periods.

Example:

Your policy anniversary is on January 2 and the planned quarterly premium payments are made. We have been sending a bill each quarter for the applicable premium. In June, we receive notification to change the Planned Premium from quarterly payments to annual payments. In this situation, we would have sent bills for the first and second quarterly payments of that year. After receiving notification, however, we would not send a bill for the last two quarterly payments of that year. We will send the next bill on the following policy anniversary date (January 2). If a premium payment is not made between July and January 2, your policy may lapse before the next bill is received. For more information on what happens if your policy lapses, please see the "Policy Termination and Reinstatement" section.

Subsequent Premium Payments

We will apply your subsequent premium payment on the Valuation Date that it is received in Good Order. If we receive your payment in Good Order on a non-Valuation Date or after the end of a Valuation Date, we will apply your payment on the next Valuation Date. If a payment is dishonored by your bank after we have applied the premium payment to your policy, the transaction will be deemed void and your payment will be reversed.

If mailing a subsequent premium payment, it must be sent to the appropriate lockbox (premium payment processing service). Premium payments sent to an incorrect lockbox will be considered not in Good Order. We will reroute the payment and apply it on the Valuation Date when it is determined to be in Good Order. Please see below for lockbox address details.

If you or the premium payer receives a single bill for multiple insurance policies, subsequent premium payments must be sent to:

Regular Mail:

MassMutual
APM Payment Processing Center
PO Box 92485
Chicago, IL 60675-2485

Overnight Mail:

MassMutual
350 North Orleans Street
Receipt & Dispatch 8th Floor
Suite 2485
Chicago, IL 60654-2485

For all other policies, subsequent premium payments must be sent to the appropriate address:

Regular Mail:

MassMutual
PO Box 92483
Chicago, IL 60675-2483

Overnight Mail:

MassMutual
350 North Orleans Street
Receipt & Dispatch 8th Floor
Lockbox 92483
Chicago, IL 60654

Electronic Premium Payments

We also offer options to allow you to pay premiums through electronic means. You may authorize the Company to draft the initial premium electronically for this policy from your bank account by completing the appropriate administrative form.

You may also initiate single or recurring premium payments for your In Force policy through our secure website (www.MassMutual.com) or by calling our Administrative Office and authorizing an electronic draft from your bank account.

Requests to initiate electronic payments are effective on the Valuation Date that you submit the request in Good Order. If you wish to cancel an electronic payment, you must call our Administrative Office at (800) 272-2216 before the end of the Valuation Date (generally 4:00 p.m. Eastern Time).

If a bank draft is dishonored by your bank after we have applied the payment to your policy, the transaction will be deemed void and your payment will be reversed. In addition, if you have established recurring electronic payments and we are unable to obtain payment from your bank account, we will discontinue the recurring payments. You may re-establish recurring electronic payments through our website.

Premium payments may also be made by wire transfer. For instructions on how to make a premium payment by wire transfer, please call our Administrative Office at (800) 272-2216.

Premium Payment Plan

For recurring withdrawals from a bank account, you may elect to pay premiums by pre-authorized check. Under this procedure, we automatically deduct premium payments each month from a designated bank account. We will not send a bill for these automatic payments. The pre-authorized check service may commence at any time, unless your policy has entered its Grace Period. This service can be discontinued by contacting our Administrative Office.

This pre-authorized check (PAC) service may be initiated or updated by visiting www.MassMutual.com or by submitting a completed PAC form.

We must receive notification of account changes at our Administrative Office at least seven business days before the next draft. Withdrawals from the designated bank account may be selected for any date between the 1st and the 28th of the month. If a date is not specified, we will select a date and send notice in advance of the first draft. We may discontinue the pre-authorized check service for your policy and automatically switch to quarterly billing if:

- your policy has insufficient value to cover the monthly charges due and the elected premium is below the current monthly deductions; or
- we are unable to obtain the premium payment from the bank account; or
- your policy has exceeded a MEC or premium limitation and we are unable to apply your payment.

Premium Flexibility

After the first premium has been paid, within limits, any amount of premium may be paid at any time while the Insured is living. Although you must maintain sufficient Net Surrender Value to keep the policy In Force, there is no required schedule for premium payments.

In some cases, applying a subsequent premium payment in a policy year could result in your policy becoming a MEC. We will not credit any amount of premium to your policy that will exceed MEC limits unless we have written authorization from the Owner to allow MEC status. For more information on MECs, please see the “Federal Income Tax Considerations” section.

Additionally, we will follow these procedures:

- If we receive a subsequent premium that will cause the policy to become a MEC, we will apply to your policy the portion of the payment that will not cause the policy to become a MEC, and we will refund the balance to the premium payer, except under the circumstances described below. The portion of the payment that is credited to the policy will be credited as of the Valuation Date the payment was determined to be in Good Order.
- If the policy anniversary is within 14 calendar days of the date the premium is received, and applying the entire payment on the policy anniversary will not cause the policy to become a MEC, we will hold the payment without interest until the policy anniversary and credit the entire payment as of the policy anniversary date. If the anniversary date is not a Valuation Date, the payment will be credited as of the next Valuation Date following the policy anniversary.
- We will notify the Owner of any premium that is held or refunded in order to prevent the policy from becoming a MEC. You may also contact us to provide different instructions regarding how to apply your premium payment.

The procedures above may not apply if there has been a material change to your policy that impacts the 7-pay limit or 7-pay period because the start of the 7-pay period may no longer coincide with your policy anniversary. Please see “Modified Endowment Contracts” in the “Federal Income Tax Considerations” section for additional information.

Premium Limitations

The Internal Revenue Code of 1986, as amended (IRC), has limits on the amount of money you may put into a life insurance contract and still meet the definition of life insurance for tax purposes. There are two tests under the IRC rules that are used to determine if a policy meets their guidelines:

- the Cash Value Accumulation Test; and
- the Guideline Premium Test.

If you choose the Cash Value Accumulation Test, the maximum premium you can pay each policy year is the greater of:

- the amount of premium paid in the preceding policy year; and
- the highest premium payment amount that would not increase the insurance risk.

If you choose the Guideline Premium Test, the maximum premium you can pay each policy year is the greater of:

- the Guideline Premium Test amount stated in the policy; and
- the amount necessary to keep the policy In Force.

If you choose the Cash Value Accumulation Test, any premium payment that would exceed these limits may only be accepted if the insured provides us with satisfactory evidence of insurability, and as a result, there would be an increase in the amount at risk. If you choose the Guideline Premium Test, we will refund any amount of premium payment that exceeds the limit stated above.

How and When Your Premium is Allocated

Net Premium

Net Premium is a premium payment received in Good Order minus the premium expense charge. Please see “Premium Expense Charge” in the “Transaction Charges” sub-section of the “Charges and Deductions” section.

Premiums that would cause the policy to be a MEC may not be considered to be in Good Order, depending on when they are received.

The Net Premium is allocated among the Separate Account divisions and the GPA according to your current instructions on our Net Premium Allocation Request form.

Net Premium Allocation

When applying for the policy, you indicate how you want Net Premiums allocated among the Separate Account divisions and the GPA. Net Premium allocations must be whole-number percentages that add up to 100%.

You may change your Net Premium allocation at any time by sending a Net Premium Allocation Request form to us at our Administrative Office. You may also change your Net Premium allocation by telephone or fax transmission, subject to certain restrictions. To help protect against unauthorized or fraudulent telephone instructions, we will take reasonable steps to confirm that telephone instructions given to us are genuine. We may record all telephone conversations.

When accompanied by a premium payment, a request to change your Net Premium allocation will become effective on the Valuation Date we receive your request, in Good Order, at our Administrative Office. If we receive your request in Good Order on a non-Valuation Date or after the end of a Valuation Date, the change will become effective on the next Valuation Date.

When Net Premium is Allocated

The Policy Date, Issue Date, and Register Date of your policy may affect the allocation of your Net Premiums. This, in turn, can affect the investment earnings and interest credited on your policy Account Value.

The Issue Date is the date we actually issue the policy. The Policy Date normally is the same date as the Issue Date. However, you may request in your application that we set the Policy Date to be a specific date earlier than the Issue Date. In this case, monthly charges will be deducted as of the requested Policy Date. These deductions will cover a period of time during which the policy is not in effect. If you paid a premium with your application and requested a Policy Date earlier than the date we receive your payment, interest will not accrue on your policy prior to the policy’s Issue Date.

Additionally, the Policy Date will determine the amount of premium required for your premium to be considered in Good Order.

The “Register Date” is the first date premiums will be allocated. We set the Register Date depending on the type of refund offered under your policy’s right to return provision. The Register Date must also be a Valuation Date.

Allocation of Initial and Subsequent Net Premiums

We will allocate any Net Premiums received on or before the Issue Date of the policy to our General Investment Account. We do not pay you interest on these amounts or credit any interest to your policy prior to the Issue Date.

It should be noted, however, that your minimum initial premium may change from the amount that was originally quoted.

If, for any reason, your initial Net Premium payment is insufficient, your payment will not be considered in Good Order. We will hold the payment in our General Investment Account. We do not pay you interest on these amounts and you will have to pay the balance before we will consider your initial premium payment in Good Order.

Initial premium payments that are in Good Order and held in our General Investment Account on the Issue Date will be credited with the current GPA interest rate on that date. Your initial Net Premium payment, including any amounts held in our General Investment Account, will be allocated among the Separate Account divisions and the GPA according to your Net Premium allocation instructions on the Register Date.

If your policy states that upon Free Look we will refund the policy’s Account Value, less any withdrawals and any Policy Debt, the Register Date is the Valuation Date that is on, or next follows, the later of:

- the day after the Issue Date of the policy; and
- the date we or the appropriate lockbox receives the balance of your initial premium.

If your policy states that upon Free Look we will refund the premium you paid less withdrawals and any Policy Debt:

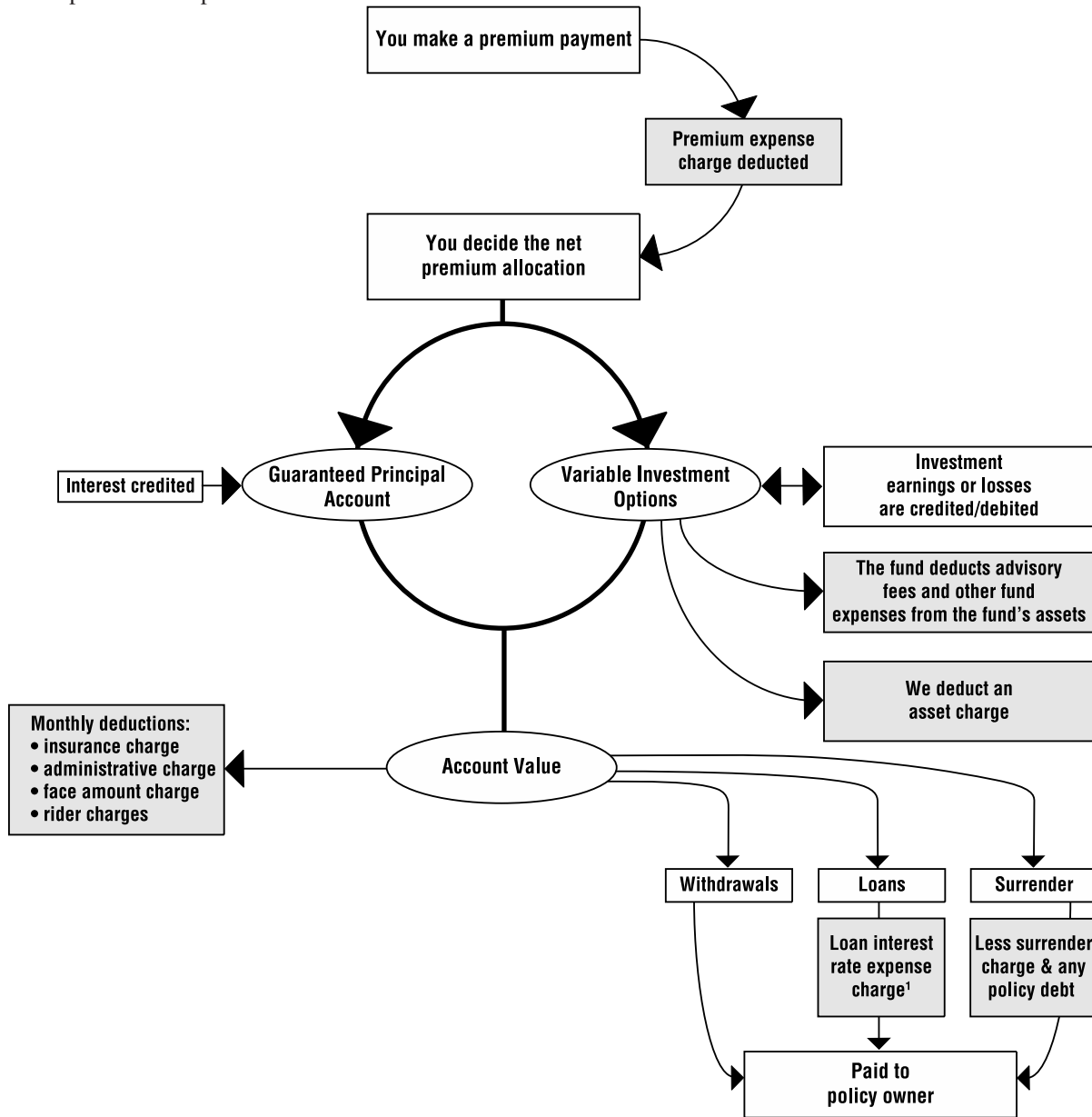
- The Register Date is the Valuation Date that is on, or next follows, the later of:
 - the number of days in the policy’s Free Look period starting from the Issue Date; and
 - the date we or the appropriate lockbox receives the balance of your initial premium.
- We will allocate existing values, held as of the policy’s Issue Date, to the money market division on the first Valuation Date after the Issue Date. (The existing values at this time would be any money taken with the application for the policy less any applicable charges plus any interest earned on the Issue Date.); and
- We will allocate any Net Premiums received after the Issue Date but before the Register Date to the money market division.

We will apply your subsequent premium payments that are received on or after the Register Date, on the Valuation Date we receive them in Good Order. Subsequent premium payments will be applied in accordance with your premium allocation instructions.

Cash Flow Diagram

The following diagram provides an overview of how premium payments flow through your policy and where deductions for fees and expenses are taken. The shaded boxes indicate fees and expenses you pay directly or indirectly under your policy. Please see the “Charges and Deductions” section for additional information.

Depending on the state of issue, we may hold your initial Net Premium payments in the money market division until the Free Look period is completed.



- (1) We charge interest on policy loans, but we also credit interest on the cash value we hold as collateral on policy loans. The Loan Interest Rate Expense Charge represents the difference (cost) between the loan interest rate charged and the interest credited on loaned amounts.

Transfers

While your policy is In Force, you may generally transfer all or part of a Separate Account division's Account Value to any other Separate Account division or the GPA by indicating the dollar amount or the percentage (in whole numbers) you wish to transfer. Transfers are effective as of the Valuation Date we receive your request in Good Order at our Administrative Office. If we receive your request in Good Order on a non-Valuation Date or after the end of a Valuation Date, your transfer request will be effective as of the next Valuation Date.

We do not charge for transfers.

You can submit transfer requests by sending us a Written Request on our transfer request form. You may also submit transfer requests by telephone, or by other means we authorize, subject to certain restrictions. To help protect against unauthorized or fraudulent telephone instructions, we will take reasonable steps to confirm that telephone instructions given to us are genuine. We may record all telephone conversations.

Generally, there is no limit on the number of transfers you may make among the Separate Account divisions. However, as discussed more fully in the section below, we may terminate, limit, or modify your ability to make such transfers due to frequent trading or market timing activity.

We limit transfers from the GPA to the Separate Account divisions to one each policy year. However, transfers are not permitted from the GPA to the money market division of the Separate Account. Transfers from a division of the Separate Account to the money market division of the Separate Account are not permitted within 90 days of any transfer from the GPA.

In addition, you may not transfer more than 25% of the GPA value (less any Policy Debt) at the time of transfer. There is one exception to this rule. If:

- you have transferred 25% of the GPA value (less any Policy Debt) each year for three consecutive policy years; and
- you have not added any Net Premiums or transferred amounts to the GPA during these three years,

then you may transfer the remainder of the GPA value (less any Policy Debt) out of the GPA in the succeeding policy year.

You may not make any fund transfers during the Free Look period for policies under which we refund the premium paid for the policy less withdrawals and Policy Debt. In addition, fund transfers (including transfers through automated programs) cannot be processed during a Grace Period. You must pay the premium due before any subsequent fund transfers can be processed.

Limits on Frequent Trading and Market Timing Activity

This policy and its investment choices are not designed to serve as vehicles for what we have determined to be frequent trading or market timing trading activity. We consider these activities to be abusive trading practices that can disrupt the management of a Fund in the following ways:

- by requiring the Fund to keep more of its assets liquid rather than investing them for long-term growth, resulting in lost investment opportunity; and
- by causing unplanned portfolio turnover.

These disruptions, in turn, can result in increased expenses and can have an adverse effect on Fund performance that could impact all Owners and beneficiaries under the policy, including long-term Owners who do not engage in these activities. Therefore, we discourage frequent trading and market timing trading activity and will not accommodate frequent transfers among the Funds. Organizations and individuals that intend to trade frequently and/or use market timing investment strategies should not purchase this policy. We have adopted policies and procedures to help us identify those individuals or entities that we determine may be engaging in frequent trading and/or market timing trading activities. We monitor trading activity to uniformly enforce those procedures. However, those who engage in such activities may employ a variety of techniques to avoid detection. Our ability to detect frequent trading or market timing may be limited by operational or technological systems, as well as by our ability to predict strategies employed by Owners (or those acting on their behalf) to avoid detection. Therefore, despite our efforts to prevent frequent trading and the market timing of Funds among the divisions of the Separate Account, there can be no assurance that we will be able to identify all those who trade frequently or those who employ a market timing strategy (or any intermediaries acting on behalf of such persons)

and curtail their trading in every instance. Moreover, our ability to discourage and restrict frequent trading or market timing may be limited by decisions of state regulatory bodies and court orders that we cannot predict. In addition, some of the Funds are available with variable products issued by other insurance companies. We do not know the effectiveness of the policies and procedures used by these other insurance companies to detect frequent trading and/or market timing. The Funds may reflect lower performance and higher expenses across all policies as a result of undetected abusive trading practices. If we, or the investment adviser to any of the Funds available with this policy, determine that an Owner's transfer patterns reflect frequent trading or employment of a market timing strategy, we will allow the Owner to submit transfer requests by regular mail only. We will not accept the Owner's transfer request if submitted by overnight mail, fax, the telephone, our website, or any other type of electronic medium. Additionally, we may reject any single trade that we determine to be abusive or harmful to the Fund.

Orders for the purchase of Fund shares may be subject to acceptance by the Fund. Therefore, we reserve the right to reject, without prior notice, any Fund transfer request if the investment in the Fund is not accepted for any reason. In addition, Funds may assess a redemption fee (which we reserve the right to collect) on shares held for a relatively short period. The prospectuses for the Funds describe the Funds' frequent trading or market timing policies and procedures, which may be more or less restrictive than the policies and procedures we have adopted. We have entered into a written agreement, as required by SEC regulation, with each Fund or its principal underwriter that obligates us to provide to the Fund promptly upon request certain information about the trading activity of individual Owners, and to execute instructions from the Fund to restrict or prohibit further purchases or transfers by specific Owners who violate the frequent trading or market timing policies established by the Fund. Owners and other persons with interests in the policies should be aware that the purchase and redemption orders received by the Funds generally are "omnibus" orders from intermediaries, such as retirement plans or separate accounts funding variable insurance contracts. The omnibus orders reflect the aggregation and netting of multiple orders from individual Owners of variable contracts and/or individual retirement plan participants. The omnibus nature of these orders may limit the Funds in their ability to apply their frequent trading or market timing policies and procedures. It may also require us to restrict or prohibit further purchases or transfers as requested by a Fund on all policies owned by an Owner whose trading activity under one variable contract has violated a Fund's frequent trading or market timing policy. If a Fund believes that an omnibus order reflects one or more transfer requests from Owners engaged in frequent trading or market timing activity, the Fund may reject the entire omnibus order.

We will notify you in writing if we reject a transfer or if we implement a restriction due to frequent trading or the use of market timing investment strategies. If we do not accept a transfer request, no change will be made to your allocations per that request. We will then allow you to resubmit the rejected transfer by regular mail only. Additionally, we may in the future take any of the following restrictive actions that are designed to prevent the employment of a frequent trading or market timing strategy:

- not accept transfer instructions from an Owner or other person authorized to conduct a transfer;
- limit the number of transfer requests that can be made during a policy year; and
- require the value transferred into a Fund to remain in that Fund for a particular period of time before it can be transferred out of the Fund.

We will apply any restrictive action we take uniformly to all Owners we believe are employing a frequent trading or market timing strategy. These restrictive actions may not work to deter frequent trading or market timing activity. We reserve the right to revise our procedures for detecting frequent trading and/or market timing at any time without prior notice if we determine it is necessary to do so in order to better detect frequent trading and/or market timing, to comply with state or federal regulatory requirements, or to impose different restrictions on frequent traders and/or market timers. If we modify our procedures, we will apply the new procedure uniformly to all Owners.

Dollar Cost Averaging Program

The Dollar Cost Averaging (DCA) Program is an automated transfer program that provides scheduled transfers of a set amount from a selected Separate Account division to any other Separate Account division(s) or the GPA.

DCA will not assure you of a profit and will not protect you against a loss in declining markets. Since our DCA Program anticipates continued investment during periods of fluctuating prices, you should consider your ability to assume the financial risks of continued DCA through periods of fluctuating price levels.

Initially, a minimum of \$1,000 of Account Value is placed in one division of the Separate Account. Then, over a stipulated period of time and at a preset frequency, a specified amount of Account Value is transferred from that Separate Account division and allocated to other Separate Account divisions or to the GPA. The minimum transfer amount for the DCA Program is \$100. Account Value held in the GPA cannot be transferred out of the GPA through the DCA Program.

Since the same, specified dollar amount is transferred to each Separate Account division at a preset frequency, more Accumulation Units are purchased when prices are low than when prices are high. Therefore, a lower average cost per unit may be achievable than through a lump-sum purchase of units or through non-level purchases of units.

If on a specified DCA transfer date, however, the Separate Account division from which amounts are being transferred does not have enough value to make the transfers you elected, DCA will not occur. DCA will occur on the next designated DCA transfer date as long as the amount you designated to be transferred is available.

To elect DCA, complete our Dollar Cost Averaging request form and send it to us for processing. You may not elect DCA for the policy while Portfolio Rebalancing is in effect. In addition, the DCA transfer date cannot occur within 66 days of the policy's Issue Date. We do not charge you to participate in the DCA Program.

We may at any time modify, suspend, or terminate the DCA Program without prior notification.

Portfolio Rebalancing Program

The Portfolio Rebalancing Program is an automated transfer program that allows you to rebalance your portfolio on a predetermined schedule that you set (annual, semi-annual, quarterly, and monthly). The GPA is not included in the Portfolio Rebalancing Program.

Over time, varying investment performance among the Separate Account divisions may cause the ratios of your Account Value in those selected Separate Account divisions to change. The Portfolio Rebalancing Program allows you to choose Separate Account divisions among which you wish to maintain certain relative proportions of Account Value. At a pre-determined frequency, we will make transfers among all the Separate Account divisions you select so that the Account Values in the selected Separate Account divisions match the ratios you set.

In order for portfolio rebalancing to occur, the Account Value in at least one of the selected Funds must vary from your chosen ratio by at least \$25.00. In addition, the first rebalancing will not occur within 66 days of the policy's Issue Date.

To elect the Portfolio Rebalancing Program, complete our Portfolio Rebalancing request form and send it to us for processing. You can also elect the Portfolio Rebalancing Program by telephone, subject to certain restrictions.

You may not elect the automated Portfolio Rebalancing Program while Dollar Cost Averaging is in effect for the policy. We do not charge you to participate in the Portfolio Rebalancing Program. We may at any time modify, suspend, or terminate the Portfolio Rebalancing Program without prior notification. Portfolio rebalancing will not assure you of a profit and will not protect you against loss in declining markets.

If you prefer a one-time portfolio rebalance instead of the automated Portfolio Rebalancing Program, you may complete our administrative form and send it to us for processing. You can also elect *Unscheduled Portfolio Rebalancing* by telephone, subject to certain restrictions. *Unscheduled Portfolio Rebalancing* transactions are effective as of the Valuation Date we receive your request in Good Order at our Administrative Office. If we receive your request in Good Order on a non-Valuation Date or after the end of a Valuation Date, your *Unscheduled Portfolio Rebalancing* request will be effective as of the next Valuation Date.

Example:

Assume that your initial Net Premium payment is split among four Separate Account divisions: MML Managed Bond, MML Foreign, MML Equity and Ivy VIP Asset Strategy.

Further assume that you have also completed a Portfolio Rebalancing request form indicating that you want the values in the Separate Account divisions rebalanced quarterly, beginning today, January 10, as follows:

- 60% in MML Managed Bond and
- 40% in Ivy VIP Asset Strategy.

Over the next 2½ months the bond market does very well while the stock market performs poorly. At the end of the first quarter, the MML Managed Bond division represents 80% of the value of the two selected Separate Account divisions in your Portfolio Rebalancing Program.

Three months from the date you selected to begin your quarterly Portfolio Rebalancing Program, April 10, we will sell all units in the MML Foreign and MML Equity divisions using the proceeds to purchase units in the MML Managed Bond (60%) and Ivy VIP Asset Strategy (40%) divisions. In addition, some of your units in the MML Managed Bond division will be sold and the proceeds will be used to purchase additional units in the Ivy VIP Asset Strategy division to bring the ratio of the two investment choices to 60/40 respectively.

Policy Value

How the Value of Your Policy is Calculated

The value of your policy is called its Account Value. The Account Value has two components:

- the Variable Account Value; and
- the Fixed Account Value.

We will calculate your Account Value on each Valuation Date.

It is important to note that certain policy changes or transactions that impact the Account Value may have an impact on whether or not your policy meets the GDB Safety Test. Please see the “Guaranteed Death Benefit (GDB) Safety Test” and “Guaranteed Death Benefit (GDB) Measure” sub-sections in the “Policy Termination and Reinstatement” section for additional information.

Variable Account Value

Transactions in your Separate Account divisions are all reflected through the purchase and sale of Accumulation Units. An Accumulation Unit is a unit of measure that we use to determine the value in each Separate Account division. For instance, before we invest your Net Premium payment in a Separate Account division, we convert your Net Premium payment into Accumulation Units and then purchase an appropriate number of shares in the designated Fund.

The Variable Account Value is the sum of your values in each of the Separate Account divisions. It reflects:

- Net Premiums allocated to the Separate Account; plus
- transfers to the Separate Account from the GPA; less
- transfers and withdrawals from the Separate Account; less
- surrender charges deducted from the Separate Account due to any decreases in the Face Amount; plus
- Persistency Credits allocated to the Separate Account, if applicable; less
- fees and charges deducted from the Separate Account; adjusted by
- the Net Investment Experience of the Separate Account.

Net Investment Experience

The Net Investment Experience of the Variable Account Value is reflected in the value of the Accumulation Units. Every Valuation Date we determine the value of an Accumulation Unit for each of the Separate Account divisions. Changes in the Accumulation Unit value reflect the investment performance of the Fund as well as deductions for the asset charge, and Fund expenses.

The value of an Accumulation Unit may go up or down from Valuation Date to Valuation Date.

When you make a premium payment, we credit your policy with Accumulation Units. We determine the number of Accumulation Units to credit by dividing the amount of the Net Premium payment allocated to a Separate Account division by the unit value for that Separate Account division. When you make a withdrawal, we deduct Accumulation Units representing the withdrawal amount from your policy. We deduct Accumulation Units for insurance and other policy charges.

We calculate the value of an Accumulation Unit for each Separate Account division at the end of each Valuation Date. Any change in the Accumulation Unit value will be reflected in your policy’s Account Value.

Fixed Account Value

The Fixed Account Value is the accumulation of:

- Net Premiums allocated to the GPA; plus
- amounts transferred into the GPA; less
- amounts transferred or withdrawn from the GPA; less
- surrender charges deducted from the GPA due to any decreases in the Face Amount; plus
- Persistency Credits allocated to the GPA, if applicable; less
- fees and charges deducted from the GPA; plus
- interest credited to the GPA.

Interest on the Fixed Account Value

The Fixed Account Value earns interest at an effective annual rate, credited daily.

For the part of the Fixed Account Value equal to any policy loan, the daily rate we use is the daily equivalent of:

- the policy loan rate minus the current loan interest rate expense charge; or
- 1%, if greater.

On each policy anniversary, the interest earned on any outstanding loan is applied to the Separate Account divisions and the GPA according to your current premium allocation instructions.

For the part of the Fixed Account Value in excess of any policy loan, the daily rate we use is the daily equivalent of:

- the current interest rate we declare; or
- the guaranteed interest rate of 1%, if greater.

The current interest rate may change as often as monthly and becomes effective on the first of each calendar month.

Persistency Credit

Beginning on the 15th policy anniversary and on each Monthly Charge Date thereafter that your policy is In Force, we will apply a Persistency Credit to your non-loaned Account Value. The Persistency Credit will be applied if our experience is not materially different from our expectations with regards to any of the following: persistency under the policies and our investment earnings, expense and tax results, capital and reserve requirements, and profits. The payment of the Persistency Credit is not guaranteed. We may reduce the amount of the Persistency Credit or discontinue the Persistency Credit altogether at any time. We will provide no less than 30 days' notice prior to a reduction or discontinuation of the Persistency Credit. The Persistency Credit start date is shown on the policy's specifications pages.

The Persistency Credit that we expect to pay on a monthly basis is 0.020809% (0.25% annualized) of the non-loaned Account Value. If we pay a Persistency Credit, it will be allocated to the Separate Account division(s) and the GPA based on the Net Premium allocation in effect as of the Monthly Charge Date. Once paid, the Persistency Credit becomes part of the policy's Account Value. Persistency Credits do not increase the policy's cost basis. If the Persistency Credit is paid, it will be calculated on each Monthly Charge Date after Net Premiums are applied and after any policy loan, policy change, transfer or withdrawal is processed, but before Monthly Charges are deducted.

The amount of any Persistency Credit is calculated as follows:

- A monthly Persistency Credit percentage based on an annual rate that we declare; multiplied by
- The non-loaned Account Value

Example - Sample Persistency Credit Calculation	
Account Value (net of Policy Debt)	\$100,000.00
Monthly Persistency Credit Percentage	0.020809% (0.25% annualized)
Persistency Credit Amount	\$ 20.81
New Account Value (net of Policy Debt)	\$100,020.81

If your policy has lapsed, we will not apply the Persistency Credit to your Account Value. The amount that would have been credited during the time your policy lapsed will not be made up if your policy is reinstated. However, if your policy is reinstated on or after the 15th policy anniversary, we will begin applying a Persistency Credit on the Monthly Charge Date on or following the reinstatement date as if your policy had not lapsed.

Death Benefit

If the Insured dies while the policy is In Force and we determine that the claim is valid, we will pay the death benefit in a lump sum to the named beneficiary.

The death benefit will be the amount provided by the death benefit option in effect on the date of death, reduced by any outstanding Policy Debt, and any unpaid premium needed to avoid Policy Termination. The death benefit is calculated as of the date of the Insured's death.

The minimum death benefit for your policy is based on your policy's Account Value as described below.

While the policy is In Force, you may make changes to the death benefit option and Face Amount. You must pay any premium due before such transaction requests can be processed.

Minimum Death Benefit

In order to qualify as life insurance under IRC Section 7702, the policy must have a minimum death benefit that is determined by one of two compliance tests. You choose the test when you apply for the policy. You cannot change your choice of test after the policy is issued.

Cash Value Accumulation Test (CVAT)

Under this test, the minimum death benefit on any date is equal to the Account Value on that date multiplied by the death benefit factor for the Insured's Attained Age on that date. The death benefit factor depends on the Insured's gender, age, tobacco use classification, and the CVAT interest rate under Section 7702 of the IRC.

Guideline Premium Test

Under this test, the minimum death benefit on any date is equal to the Account Value on that date multiplied by the death benefit factor, but the death benefit factor varies only by the Attained Age of the Insured.

The death benefit factors for the Cash Value Accumulation Test and the Guideline Premium Test are shown in the policy. Your choice of the Guideline Premium Test or the Cash Value Accumulation Test will depend on how you intend to pay premiums. In general, if you intend to pay premiums only in the early policy years, the Cash Value Accumulation Test may be appropriate. If you intend to pay level premiums over a long period of years, the Guideline Premium Test may be more appropriate. You should review policy illustrations of both approaches with your registered representative to determine how the policy works under each test, and which is best for you.

Death Benefit Options

When you apply for the policy, you must choose one of three death benefit options. These are:

- **Option 1** – The benefit amount is the greater of:
 - the Face Amount on the date of death; or
 - the minimum death benefit on the date of death.
- **Option 2** – The benefit amount is the greater of:
 - the Face Amount plus the Account Value on the date of death; or
 - the minimum death benefit on the date of death.
- **Option 3** – The benefit amount is the greater of:
 - the Face Amount, plus the premiums paid (less any premiums refunded and any premiums paid after the Insured's Attained Age 90) to the date of death, plus optional interest that is credited during the first five policy years on premiums paid; or
 - the minimum death benefit on the date of death.

You should note that under death benefit option 1, the death benefit amount is not affected by your policy's investment experience unless the death benefit is based on the minimum death benefit. Under death benefit option 2, the death benefit is a variable death benefit. This means that, because the death benefit amount includes the Account Value, it can change from day to day. Your policy's Account Value will vary due to the investment performance of the Separate Account

divisions in which you have allocated premium or transferred funds. It is also impacted by the deduction of charges and other policy expenses. It is possible that the policy's Account Value can be zero, which will reduce the overall value of the death benefit. The "Policy Value" section provides more detailed information on how your policy's Account Value is determined.

Death benefit option 3 is available with the choice of having interest applied to all premiums paid (and not refunded) for the first five policy years. We determine the interest rate monthly and do not guarantee that the rate will be greater than zero. If interest is paid, only the death benefit amount under this option will increase; interest is not credited to the Account Value of your policy. The interest is credited on each Monthly Charge Date during the first five policy years. Interest, if paid, is credited on the cumulative premiums paid, including any interest previously credited.

There is no explicit fee for electing death benefit option 3 with interest; however, election must be made at the time of application. If this option is selected and the interest rate is greater than zero in any of the first five policy years, insurance charges will be higher for all subsequent policy years as a result of the higher death benefit attributable to electing that option. The increased death benefit resulting from this interest during the first five policy years may be offset over time by the higher insurance charges.

Right to Change the Death Benefit Option

After the first policy year, you may change the death benefit option while the Insured is living. However, a death benefit option change cannot be processed during a Grace Period. In addition, the death benefit option may not be changed to death benefit option 3 and no change will be permitted beyond the Insured's Attained Age 120. Although we do not currently restrict the number of times you may change your death benefit option, we reserve the right to limit the number of death benefit option changes in any policy year.

You must send a Written Request in Good Order to our Administrative Office to change your death benefit option. We do not require evidence of insurability.

The death benefit option change will be effective on the Monthly Charge Date that is on, or precedes, the date we approve the request.

If you change your death benefit option, we will adjust your policy's Face Amount. The Face Amount adjustment (up or down) will be in the amount needed so that the death benefit immediately before the change will be the same as the death benefit after the change.

Please see Appendix C for examples of how a change in death benefit option may impact the policy's Face Amount.

The death benefit following a death benefit option change, however, will behave differently based on the new death benefit option in effect. For example, if an Owner changes the death benefit option from option 1 (death benefit = Face Amount) to option 2 (death benefit = Face Amount + Account Value), the death benefit after the change will be based on the Account Value rather than remaining level. The Owner may decide to make this change if the desire is to have a death benefit that will increase if the Account Value grows.

Alternatively, an Owner may change from death benefit option 2 to option 1 if they would like to have a level death benefit following the change. Having a level death benefit (rather than increasing as the Account Value grows) would reduce the policy's insurance risk as the policy's Account Value increases and, as a result, would reduce the monthly insurance charges. If you elect death benefit option 2, you may choose to change to death benefit option 1 automatically at an Attained Age you select. You may select the Attained Age for this change at the time of application for your policy, or after issue by Written Request. You may also cancel or adjust the timing of the scheduled death benefit option change.

When the Face Amount changes as a result of a change in the death benefit option:

- the monthly charges will also change;
- the charge for certain additional benefits may change;
- the GDB Monthly Factors will change;
- the premium limitations will change (for additional information, please see "Premium Limitations" in the "Premiums" section); and
- the policy surrender charge will not change.

A change in your death benefit option may also have an impact on your ability to satisfy the GDB Safety Test. Please see the "Guaranteed Death Benefit (GDB) Safety Test" and "Guaranteed Death Benefit (GDB) Measure" sub-sections in the "Policy Termination and Reinstatement" section for additional information.

You cannot change the death benefit option if, as a result, the Face Amount would be reduced to an amount that is less than the minimum Face Amount.

When We Pay Death Benefit Proceeds

If the policy is In Force and it is determined that the claim is valid, we normally pay the death benefit within seven calendar days after the date we receive due proof of the Insured's death and all required documents, in Good Order, at our Administrative Office.

Certain situations may delay payment of a death claim. These situations include, but are not limited to, our right to contest the validity of a death claim. We investigate all death claims that occur within the policy's two-year contestable periods as described below.

We have the right to contest the validity of the policy for any material representation of a fact within two years:

- after the policy is issued;
- after a Face Amount increase where evidence of insurability is required; or
- after reinstatement of the policy where evidence of insurability is required.

If the Face Amount increase is the result of a policy change that does not require evidence of insurability such as a conversion from another policy or the exercise of an option on this or another policy, we have the right to contest the validity of the Face Amount increase within two years after that other policy was issued.

We may also investigate death claims beyond the contestable periods. After any two-year contestable period, in the absence of fraud, we cannot contest the validity of a policy or a Face Amount increase, except for failure to pay premiums.

We generally determine whether the contested claim is valid within five days after we receive the information from a completed investigation. Since it may take some time to receive the information, payment could be delayed during this period.

We can also delay payment of the death benefit if a portion is based on the Variable Account Value of the policy and the Insured's date of death is before or during any period when:

- it is not reasonably practicable to determine the amount because the NYSE is closed (other than customary weekend and holiday closings);
- trading is restricted by the SEC;
- an emergency exists as a result of which disposal of shares of the Funds is not reasonably practicable or we cannot reasonably value the shares of the Funds; or
- the SEC, by order, permits us to delay payment in order to protect our Owners.

Interest on Death Benefit

We will add interest to the death benefit from the date of the Insured's death to the date of a lump sum payment. Interest will be computed (1) at a rate we declare for funds left on deposit with us applicable to individual life insurance policies or, if we have not established such a rate, the Two Year Treasury Constant Maturity Rate as published by the Federal Reserve, or (2) at any higher rate required by law.

Although the death benefit is generally excludable from the income of the beneficiary who receives it, interest on the death benefit is includable in the beneficiary's income.

Right to Change the Face Amount

You may request an increase or decrease in the Face Amount. If you change your Face Amount, your policy charges, including surrender charges, will change accordingly. If the policy's Account Value less surrender charges (or Net Surrender Value if there is Policy Debt) cannot keep the policy In Force with the requested change in Face Amount, a premium payment may be required. Your ability to satisfy the GDB Safety Test will also be affected. Please see the "Guaranteed Death Benefit (GDB) Safety Test" and "Guaranteed Death Benefit (GDB) Measure" sub-sections in the "Policy Termination and Reinstatement" section for additional information.

We reserve the right to limit the size and number of changes to the Face Amount in any policy year.

If you increase or decrease the policy Face Amount, the premium limitations will change (please see "Premium Limitations" in the "Premiums" section for additional information), and your policy may become a MEC under federal tax law. You should consult your tax adviser for information on how a MEC may affect your tax situation. MECs are discussed in the "Federal Income Tax Considerations" section.

Increases in Face Amount

To increase the policy Face Amount, you must send to our Administrative Office a written application and evidence the Insured is still insurable. We treat each Face Amount increase as a separate segment of coverage. An increase in Face Amount cannot be processed during a Grace Period.

An increase in Face Amount may not be:

- less than \$25,000; or
- made after the sixth Monthly Charge Date following the insured's 75th birthday.

If the Net Surrender Value is insufficient to continue the changed policy In Force for three months at the new monthly charges and interest, we may require a premium payment sufficient to increase the Net Surrender Value to such an amount.

Additional insurance charges, Face Amount charges, GDB Insurance Factors, and GDB Monthly Face Amount Factors will apply for each Face Amount increase you elect. Additionally, a separate surrender charge schedule will apply to the amount of the increase. Generally, these surrender charges will apply during the first ten years of each segment of coverage.

Any increase elected under any insurability protection type of rider will be effective as directed in the rider. Any other Face Amount increases will be effective on the Monthly Charge Date that is on, or precedes, the date we approve the application for the increase.

Decreases in Face Amount

You may decrease the Face Amount any time after the first policy year or one year after a Face Amount increase. You must send a Written Request in Good Order to our Administrative Office. When we receive a Written Request for a decrease in Face Amount from the Owner, we will provide the Owner with a written notice that specifies the surrender charges to be assessed at the time of the decrease. If the Owner does not withdraw the request for the decrease in Face Amount within ten days from the date of the written notice, we will process the decrease in Face Amount and assess any surrender charges that may apply. If we determine that the policy will become a MEC, then the decrease will not be processed until a MEC Notice and Acknowledgment form is received in Good Order at our Administrative Office.

If you decrease the policy Face Amount, we cancel all or part of your Face Amount segments, and a partial surrender charge may apply. Surrender charges that apply when you decrease the policy's Face Amount are discussed in "Surrender Charges for Decreases in Face Amount" in the "Transaction Charges" section.

A decrease will reduce the Face Amount in the following order:

- (1) the Face Amount of the most recent increase; then
- (2) the Face Amounts of the next most recent increases successively; and last
- (3) the Initial Face Amount.

You may not decrease the Face Amount:

- after the Insured's Attained Age 120; or
- if the decrease would result in a Face Amount of less than the minimum Face Amount (\$50,000).

Face Amount decreases will be effective on the Monthly Charge Date that is on, or precedes, the date we receive (in Good Order at our Administrative Office) any applicable request for the decrease. A Face Amount decrease will reduce your policy's Account Value by the amount of any applicable partial surrender charge. The remaining surrender charge will be reduced by the amount of the partial surrender charge assessed when the Face Amount is decreased. If the policy's Account Value less any remaining surrender charge (or Net Surrender Value if there is Policy Debt) cannot keep the policy In Force, a premium payment may be required.

Decreases in the policy's Face Amount may have adverse tax consequences.

Suicide

If the Insured commits suicide, while sane or insane, within two years from the Issue Date of this policy and while the policy is In Force, this policy will terminate. In this case, we will only pay an amount equal to the premiums accepted for this policy, less any amounts withdrawn and less any Policy Debt.

If the Insured commits suicide, while sane or insane, within two years from the reinstatement date and while the policy is In Force, the policy will terminate. In this case, we will only pay an amount equal to any amount paid to reinstate the policy and any premiums accepted thereafter, less any amounts withdrawn and less any Policy Debt.

If the Insured commits suicide, while sane or insane, within two years after the effective date of any increase in the Face Amount, we will pay an amount equal to the monthly charges for that increase segment. No additional payments will be made for that Face Amount increase. This payment is in addition to any death benefit amount payable for coverage segments that were In Force prior to the Face Amount increase. However, if a payment as described in either of the two preceding paragraphs is made, the additional payment described in this paragraph will not be made.

Example:

Assume a policy is issued with a \$500,000 Face Amount under death benefit option 1. In policy year 4, the owner applies for a \$250,000 Face Amount increase, which is approved. If the insured commits suicide within two years of the increase, the benefit payable to the beneficiaries is equal to the original \$500,000 death benefit, plus an additional payment equal to the monthly charges that were deducted from the Account Value for the increase segment of \$250,000.

We will pay the full death benefit, less any amounts withdrawn and less any Policy Debt, if the Insured commits suicide two years or more after the Issue Date, and there has been no reinstatement or increase in the Face Amount within those two years.

For policies issued in North Dakota, all references in this provision to "two years" should be replaced with "one year".

Error of Age or Gender

If the Insured's date of birth or gender is misstated in the application, an adjustment will be made. If the adjustment is made when the Insured dies, the death benefit will reflect the amount provided by the most recent monthly Insurance Charge using the correct age and gender. If the adjustment is made before the Insured dies, the Face Amount will remain the same, and future monthly charges will be based on the correct age and gender.

Other Benefits Available Under the Policy

Additional Benefits

In addition to the standard death benefit(s) associated with your policy, other standard and/or optional benefits may be available to you. You can obtain additional benefits if you request them and/or qualify for them. We provide certain additional benefits by rider or endorsement. The cost of each rider is generally deducted as part of the monthly charges. Some riders do not result in monthly charges, but do require a fee to exercise the riders. Adding or removing a rider for which there is a monthly charge may impact the premium limitations on your policy. For additional information, please see “Premium Limitations” in the “Premiums” section. If you choose to add a rider, you may cancel it at any time upon Written Request. You may not, however, add or remove a rider during a Grace Period. You must pay any premium due before such transaction requests can be processed. Having one or more riders that have monthly charges will increase the overall cost of your policy.

You may choose all of the benefits described; however, the Disability Benefit, Waiver of Monthly Charges, and Waiver of Specified Premium Riders may not be used in combination. After you have selected and been issued one of these three riders, you may not terminate the rider and choose one of the other two riders.

Riders for which there is a monthly charge will also have monthly GDB Rider Factors associated with them. The GDB Rider Factors will be described in the policy’s specifications pages, and will be included in the calculations used to determine the GDB Measure. Adding or terminating riders may affect the Account Value of your policy and may also impact the GDB Safety Test. Please see the “Guaranteed Death Benefit (GDB) Safety Test” and “Guaranteed Death Benefit (GDB) Measure” sub-sections in the “Policy Termination and Reinstatement” section for additional information.

We also offer two automated transfer programs as additional benefits – Portfolio Rebalancing and Dollar Cost Averaging (DCA). Please note that you cannot select both the Portfolio Rebalancing Program and the DCA Program at the same time.

The following table summarizes the information about the additional benefits available under the policy. Information about the fees associated with each benefit included in the table may be found in the Fee Table.

Name of Benefit	Purpose	Is this Benefit Standard or Optional?	Brief Description of Restrictions/ Limitations
Accelerated Death Benefit for Terminal Illness Rider	Advances portion of death benefit upon Insured being terminally ill and not expected to live more than 12 months	Standard	<ul style="list-style-type: none"> • Eligible payment amount (Eligible Amount) does not include: amounts under riders that do not provide level or increasing coverage for at least two years after acceleration date; and amount payable under accidental death benefit rider. • Minimum payment is \$25,000. • Maximum payment is lesser of 75% of Eligible Amount and \$250,000. • Death benefit reduced by accelerated amount. • Face Amount and Account Value reduced by same percent as decrease in death benefit.

Name of Benefit	Purpose	Is this Benefit Standard or Optional?	Brief Description of Restrictions/ Limitations
Accelerated Death Benefit for Chronic Illness Rider	Advances portion of death benefit upon Insured being chronically ill (as defined in the rider)	Standard (based on issue age and underwriting)	<ul style="list-style-type: none"> • Portion of death benefit used to determine maximum amount accelerated in a twelve-month period (“Eligible Amount”) does not include amount payable under other riders upon death of Insured, or any Face Amount increase, unless increase from Guaranteed Insurability Rider. • \$10,000 minimum accelerated amount. • Maximum accelerated amount is the lesser of 20% of Eligible Amount and \$200,000. • Limit on maximum lifetime accelerated amount in policy. • Death benefit is reduced by accelerated amount. • Face Amount and Account Value are reduced by same percentage as death benefit. • Accelerated amount limited by minimum Face Amount. • Portion of payment first used to reduce Policy Debt.
Overloan Protection Rider	Prevents policy lapse due to Policy Debt by providing a guaranteed paid-up insurance benefit	Optional (This rider is included automatically with the policy if the policy was issued using the Guideline Premium Test.)	<p>Requirements:</p> <ul style="list-style-type: none"> • Policy In Force and at or past 15th policy anniversary. • Insured at least Attained Age 75. • Account Value at least \$100,000. • Non-loaned Account Value must be sufficient to pay rider charge (if not, Owner required to repay Policy Debt to exercise rider). • Policy issued under Guideline Premium Test. • Policy is not and upon exercise of rider will not become a MEC. • Policy Debt exceeds specified percentage of Account Value. • Amounts that can be withdrawn without federal tax penalty have been withdrawn. <p>Exercising rider results in:</p> <ul style="list-style-type: none"> • Change to Option 1 death benefit if not already selected. • Face Amount equals minimum death benefit. • Loaned Account Value earns interest at loan interest rate. • Non-loaned Account Value held in GPA and accrues interest at not less than minimum GPA rate. • All other riders terminate. • No additional premiums allowed. • No further policy loans or repayments. • No further policy changes, transfers, and withdrawals allowed. • Death benefit adjusted and may be reduced to minimum death benefit.

Name of Benefit	Purpose	Is this Benefit Standard or Optional?	Brief Description of Restrictions/ Limitations
Disability Benefit Rider	Credits specified amount to Account Value and waives monthly charges on specific Monthly Charges Dates while Insured is totally and continuously disabled (as defined in the rider)	Optional	<ul style="list-style-type: none"> Evidence of insurability required to add rider. Monthly credit ends day before Insured's Attained Age 65. Waiver of monthly charges ends day before Insured's Attained Age 65 if Total Disability began at Insured's Attained Age 60 or older. Rider not available if Waiver of Monthly Charges Rider or Waiver of Specified Premium Rider added to policy.
Guaranteed Insurability Rider	Provides right to increase Face Amount or purchase new policy without evidence of insurability on specified dates	Optional	<ul style="list-style-type: none"> Requires premium payment to increase Face Amount or purchase new policy. Option amount limited to lesser of \$125,000 or two times Face Amount of base policy. Evidence of insurability required to add rider.
Substitute of Insured Rider	Allows for substitution of Insured	Standard	<ul style="list-style-type: none"> Owner must have insurable interest in life of substitute Insured. Both Insured and substitute Insured must be alive on date of substitution. Age of substitute Insured on birthday nearest Policy Date cannot be less than the minimum age or greater than maximum age allowed. Evidence of insurability of substitute Insured required. Payment of premium required if needed to avoid termination.
Waiver of Monthly Charges Rider	Waives monthly charges while Insured is totally and continuously disabled (as defined in rider)	Optional	<ul style="list-style-type: none"> Evidence of insurability required to add rider. Rider benefit ends day before Insured's Attained Age 65, if Total Disability began when Insured was Attained Age 60 or older. Rider not available if Disability Benefit Rider or Waiver of Specified Premium Rider added to policy.
Waiver of Specified Premium Rider	Credits Account Value with the greater of (1) specified monthly premium or (2) monthly charges due, while Insured is totally and continuously disabled (as defined in the rider)	Optional	<ul style="list-style-type: none"> Evidence of insurability required to add rider. Rider benefit ends day before Insured's Attained Age 65, if Total Disability began when Insured was Attained Age 60 or older. If Total Disability began before Insured was Attained Age 60 and continues to Attained Age 65, rider benefit after Age 65 limited to crediting Account Value with monthly charges due. Rider not available if Disability Benefit Rider or Waiver of Monthly Charges Rider added to policy.
Right to Convert To a Whole Life Insurance Policy Endorsement	Allows converting to whole life policy without evidence of insurability and deduction of surrender charges	Standard (for issue ages 62 and below)	<ul style="list-style-type: none"> Conversion available after second policy anniversary to earlier of 10th policy anniversary or Attained Age 65. Conversion not permitted within two years of Face Amount increase or policy reinstatement.

Name of Benefit	Purpose	Is this Benefit Standard or Optional?	Brief Description of Restrictions/ Limitations
Adjustment to Surrender Charges Endorsement for Internal Replacements	Waives surrender charges in exchange of policy for non-variable life policy offered by MassMutual or its subsidiary	Standard	<ul style="list-style-type: none"> Evidence of insurability required. MassMutual reserves right to require repayment of loans and loan interest.
Adjustment to Surrender Charges Endorsement	Waives surrender charges if policy fully surrendered	Optional	<ul style="list-style-type: none"> Evidence of insurability required to add endorsement. Not available for policies issued for personal use or business cases if annual premium less than \$100,000. Other conditions that must be met: <ul style="list-style-type: none"> Policy is In Force; Surrender occurs after first five policy years; No loans or withdrawals taken under policy; and Policy not assigned after issue.
Portfolio Rebalancing Program	Automatically rebalances Separate Account divisions to maintain original percent allocation of Account Value	Optional	Cannot use with the Dollar Cost Averaging Program or within 66 days of policy Issue Date.
Dollar Cost Averaging Program	Automatically transfers a specific amount of Account Value from a single Separate Account division to other divisions or the GPA, at set intervals	Optional	Cannot use with the Portfolio Rebalancing Program or within 66 days of policy Issue Date.
Persistency Credit	Automatically applies a percentage based credit that is added to the policy's non-loaned Account Value	Standard	Not guaranteed.

Accelerated Death Benefit for Terminal Illness Rider

This rider advances a portion of the policy's death benefit to the Owner when we receive proof, satisfactory to us, that the Insured is terminally ill and is not expected to live more than 12 months. If the death benefit is accelerated under this rider, the policy values, including the death benefit, cash values, and loan values, under this policy will be reduced.

Benefits under the rider may be taxable. The Owner should seek tax advice prior to requesting a terminal illness benefit payment.

For the purposes of this rider, terminal illness is a medical condition that:

- is first diagnosed by a Legally Qualified Physician; and
- with reasonable medical certainty, will result in the death of the Insured within 12 months from the date the Legally Qualified Physician certifies the diagnosis; and
- is not curable by any means available to the medical profession.

An accelerated benefit will be paid when the following requirements are met:

- we receive the Owner's Written Request for payment of an accelerated death benefit under the policy;
- we receive the Insured's written authorization to release medical records to us;
- we receive the written consent to this request of any assignee and any irrevocable beneficiary under the policy; and
- we receive a written certification from a Legally Qualified Physician that the Insured has a terminal illness, as defined above.

The amount eligible for acceleration under the rider (Eligible Amount) is equal to the sum of (1) and (2) below:

- (1) the death benefit payable under the policy (before any reduction for Policy Debt).
- (2) the amount payable upon death of the Insured under any life insurance rider included with the policy, if that rider provides level or increasing coverage on the life of the Insured for at least two years after the acceleration date.

The Eligible Amount does not include:

- the amount payable upon the death of the Insured under any life insurance rider that does not provide level or increasing coverage for at least two years after the acceleration date; and
- the amount payable upon the death of someone other than the Insured under the policy, if applicable; and
- the amount of death benefit under any accidental death benefit rider.

The Owner may accelerate any portion of the Eligible Amount subject to the following limitations:

- the minimum amount that may be accelerated is \$25,000; and
- the maximum amount that may be accelerated is equal to the lesser of 75% of the Eligible Amount and \$250,000.

Accelerating the death benefit for terminal illness will have the following effects on the policy:

- the death benefit will be reduced by the accelerated amount.
- the Face Amount and Account Value will be reduced by the same percentage as the decrease in the death benefit of the policy (before any reduction for Policy Debt). Monthly Charges will then be based on the new Face Amount and Account Value.
- the GDB Measure and associated premium used to satisfy the GDB Safety Test will be reduced to reflect the new Face Amount.

There is no premium or cost of insurance charge for this rider. However, when you exercise benefits under this rider, your death benefit will be reduced by an amount greater than the terminal illness benefit payment. The Terminal Illness Benefit Payment will be reduced by:

- a fee of not more than \$250; and
- twelve months interest on the amount accelerated at the annual interest rate we have declared for benefits under this rider. (This annual interest rate will not exceed the maximum rate specified in the rider.)

In no event will the terminal illness benefit payment be less than the result of (1) multiplied by (2), where:

- (1) is equal to the amount to be accelerated divided by the death benefit (before any reduction for Policy Debt);
and
- (2) is equal to the Account Value less Policy Debt.

If there is any Policy Debt at the time a terminal illness benefit payment is made, a portion of the payment will be used to repay a portion of the Policy Debt in accordance with the rider.

Payment of the terminal illness benefit will be made to the Owner in a single sum, unless the payment has been assigned or designated by the Owner. However, we will not make the payment if we first receive due proof of the Insured's death; in this case, we will instead pay the death benefit as if no request has been received under the rider.

The rider terminates on the earliest of:

- on the date the Owner makes a Written Request to terminate (Note: The Owner may choose to terminate the rider if he or she wishes to guarantee that the policy's death benefit is paid to the named beneficiaries rather than to the Owner. However, if the rider is terminated at the Owner's request, it cannot be reinstated.);
- on the date the policy terminates, for any reason;
- the date that a Terminal Illness Benefit Payment is made under this rider; or
- on the date the base policy is changed to a different policy on which the rider is not available.

Where this rider is available, it is included automatically with the policy. There is no charge for this rider.

An example of the operation of the Accelerated Death Benefit for Terminal Illness Rider is set forth in Appendix D.

Accelerated Death Benefit for Chronic Illness Rider

This rider advances to the Owner a portion of the policy's death benefit, when we receive proof, satisfactory to us, as set forth below, that the insured is chronically ill. If the death benefit is accelerated under this rider, the policy values, including the death benefit, cash values, and loan values, under this policy will be reduced.

Benefits under the rider may be taxable. The Owner should seek tax advice prior to requesting a chronic illness benefit payment.

For the purposes of this rider, chronically ill means that, within the previous twelve (12) months, a Legally Qualified Physician (as defined in the rider) has certified that the Insured:

- is permanently unable to perform, without Substantial Assistance, at least two (2) Activities of Daily Living due to loss of functional capacity; or
- requires Substantial Supervision to protect the Insured from threats to health or safety due to permanent Severe Cognitive Impairment.

A chronic illness benefit payment will be made when the following items are provided in writing:

- Completed claim forms;
- Certification from a Legally Qualified Physician that the Insured is chronically ill, as defined above; and
- The written consent of any assignee and irrevocable beneficiary under the policy.

The Eligible Amount is the portion of the death benefit that is used to determine the maximum amount to be accelerated in any twelve-month period. The Eligible Amount is determined the first time an application for a chronic Illness benefit payment is approved and will not change. The Eligible Amount is equal to the death benefit of the policy (before any reduction for Policy Debt) on the Monthly Charge Date that is on, or precedes, the date your application for chronic illness is received in Good Order.

The Eligible Amount does not include the amount payable upon the death of the Insured under any life insurance rider, or any face amount increase, unless the increase was the result of exercising an increase option on a guaranteed insurability rider attached to the policy at issue, if applicable.

The amount to be accelerated is the amount of the death benefit that the Owner elects to accelerate under the terms of this rider, subject to the following limitations:

- The minimum annual amount to be accelerated is \$10,000.
- The maximum annual amount to be accelerated is the lesser of 20% of the Eligible Amount and \$200,000.
- The maximum lifetime amount To Be Accelerated during the life of the Insured cannot exceed the amount shown in the policy's specifications pages.
- The amount to be accelerated must not cause the policy to no longer qualify as life insurance according to the Internal Revenue Code.
- The Face Amount remaining after acceleration cannot be less than the minimum face amount shown in the policy's specifications pages, plus the amount of any Face Amount increase(s) that were not the result of exercising an increase option under a guaranteed insurability rider attached to this policy at issue, if applicable.
- The resulting chronic illness benefit payment cannot exceed the annualized per diem limitation within the meaning of sections 101(g)(3)(D) and 7702B(d) of the Internal Revenue Code less the amount received under any qualified long-term care coverage.

The Owner is only eligible to receive payment under this rider once in any twelve-month period. Accelerating the death benefit for chronic illness will have the following effects on the policy:

- The death benefit will be reduced by the accelerated amount.
- The Face Amount and Account Value will be reduced by the same percentage as the decrease in the death benefit of the policy (before any reduction for Policy Debt). Monthly Charges will then be based on the new Face Amount and Account Value.
- The GDB Measure and associated premium used to satisfy the GDB Safety Test will be reduced to reflect the new Face Amount.

There is no premium or cost of insurance charge for this rider. However, when you exercise benefits under this rider, your death benefit will be reduced by an amount greater than the chronic illness benefit payment. The chronic illness benefit payment will be the present value of the amount to be accelerated, based upon the interest rate and mortality assumptions described in the rider.

If there is any Policy Debt at the time a chronic illness benefit payment is made, a portion of the payment will be used to repay a portion of the Policy Debt in accordance with the rider.

This rider is available for issue ages 18-65 and is included automatically for insureds who qualify based on risk class and other underwriting requirements. The rider is only available at the time of issue.

This rider will terminate on the earliest of:

- The date the Owner makes a Written Request to terminate (Note: The Owner may choose to terminate the rider if he or she wishes to guarantee that the policy's death benefit is paid to the named beneficiaries rather than to the Owner. However, if the rider is terminated at the Owner's request, it cannot be reinstated.);
- The date the policy is changed to a different policy on which this rider is not available;
- The date you exercise the accelerated death benefit for terminal illness rider; or
- The date the policy terminates for any reason.

An example of the operation of the Accelerated Death Benefit for Chronic Illness Rider is set forth in Appendix E.

Disability Benefit Rider

This rider provides a disability benefit while the Insured is totally and continuously disabled as defined in the rider. The rider provides the following monthly benefits if the Insured becomes totally and continuously disabled.

- On specific Monthly Charge Dates we will credit an amount to the Account Value equal to the specified benefit amount shown in the policy's specifications for this rider. This amount will be treated as a Net Premium.
- We also will waive the monthly charges due for this policy on specific Monthly Charge Dates.

The benefits will be provided after the Insured has been totally disabled for four continuous months and all conditions of the rider have been met.

The amount of rider benefit that is credited to the GDB Measure is the greater of:

- the total rider benefit amount (specified benefit amount plus policy monthly charges) allocated to the Account Value; and
- the GDB Monthly Factors.

Total Disability is defined as an incapacity of the Insured that:

- is caused by sickness or injury; and
- requires the Insured to be under a doctor's care; and
- begins while this rider is In Force; and
- for the first 60 months of any period of Total Disability, prevents the Insured from performing the substantial and material duties of the Insured's occupation; and
- after Total Disability has continued for 60 months, prevents the Insured from engaging in any occupation the Insured is or may become qualified to perform.

The benefits will end when any of the following occurs:

- the Insured is no longer totally disabled; or
- satisfactory proof of continued Total Disability is not given to us as required; or
- the Insured refuses or fails to have an examination we require; or
- for the specified monthly benefit, the day before the Insured's Attained Age becomes 65; and
- for the waiver of monthly charges, the day before the Insured's Attained Age becomes 65 if Total Disability began when the Insured's Attained Age was 60 or older.

If Total Disability began before the Insured's Attained Age 60 and continues to Attained Age 65, the rider benefit after Attained Age 65 will be the monthly charges for this policy.

Proof of claim must be received at our Administrative Office within one year after the notice of claim was given to us. However, if it was not reasonably possible to give us proof of claim on time, the delay will not reduce the benefit if proof is given as soon as reasonably possible.

This rider may be added at or after the time the policy is issued up to the Insured's Attained Age 59. Satisfactory evidence of insurability is required at the time the rider is added. It cannot be added to a policy that has the Waiver of Monthly Charges Rider or the Waiver of Specified Premium Rider.

The Owner may terminate this rider at any time. If the rider is terminated at the Owner's request, this rider cannot be reinstated. If not terminated at the Owner's request, this rider will terminate automatically at the Insured's Attained Age 65.

There is a monthly charge for this rider, which is the sum of the charge for the specified benefit amount and the charge for the waiver of monthly charges. This charge is based on the Insured's Attained Age and gender, and on the benefits provided.

- The specified benefit amount charge each month is equal to the specified monthly benefit multiplied by the specified benefit charge rate for the Insured's Attained Age.
- The waiver charge each month is equal to the sum of the monthly charges for the month, excluding the charge for this rider, multiplied by the waiver charge rate for the Insured's Attained Age.

The monthly charge is deducted from the Account Value on each Monthly Charge Date prior to the rider's termination.

There is also a monthly GDB Rider Factor. The GDB Rider Factor is calculated similarly to the monthly rider charge but is based on the sum of the GDB specified benefit factor and the GDB waiver factor. The GDB Measure is reduced by the GDB Rider Factor on each Monthly Charge Date prior to the rider's termination.

The specified benefit charge rates, waiver charge rates, GDB specified benefit factors, and GDB waiver factors are shown in the policy's specifications pages.

The example below shows the operation of this rider.

- The specified monthly benefit is \$500.
- The Insured is Attained Age 55.
- The Insured has been totally and permanently disabled for at least 4 months.
- Account Value on the monthly charge date prior to the deduction of monthly charges is \$100,000.
- Total monthly charges are \$400.
- The rider waives the monthly charges and credits the specified monthly benefit to the Account Value.

The impact to the Account Value is as follows:

\$100,000	Starting Account Value
+ \$500	Rider Benefit
- \$0	Monthly Charges
\$100,500	Ending Account Value

Guaranteed Insurability Rider

This rider provides the right to increase the Face Amount of the policy or purchase a new policy without evidence of insurability on certain option dates as defined in the rider.

A written application is required and an initial premium for a new policy or any premium payment needed for a Face Amount increase to the existing policy must be received at our Administrative Office by the end of the option period.

There are two types of option periods, regular and substitute. Regular option periods coincide with the policy anniversary dates nearest the Insured's 25th, 28th, 31st, 34th, 37th, 40th, 43rd, and 46th birthday. Substitute option dates occur 91 days after the Insured's marriage, the birth of an Insured's child or adoption of a child by the Insured. In the event of multiple births, the maximum increase will be the benefit amount listed in the policy's specifications pages multiplied by the number of children born (up to a maximum of three).

A substitute option date can be exercised only if there is a subsequent regular option date. If new insurance is purchased during a substitute option period, new insurance cannot be purchased again during the next regular option period. Failure to exercise an option date does not impact your ability to exercise a future option.

The rider option amount is subject to a maximum limit of \$125,000, or, if less, two times the Face Amount of the base policy on the effective date of an increase in the rider option amount.

This rider may be added at or after the time the policy is issued up to the Insured's Attained Age 40. Satisfactory evidence of insurability is required at the time the rider is added.

The rider terminates:

- when the Owner makes a Written Request to terminate (Note: If the rider is terminated at the Owner's request, it cannot be reinstated.);
- after the last regular option date as defined in the rider;
- following election of the last Face Amount increase that may be elected under the rider;
- if the policy is changed to another policy under which this rider is not available; or
- if the policy terminates.

There is a monthly charge for this rider. It is a rate per \$1,000 of rider option amount, which is deducted from the Account Value on each Monthly Charge Date prior to the rider's termination. This rider also has a GDB Rider Factor and a rider premium expense factor associated with it. The GDB Measure is reduced by the GDB Rider Factor on each Monthly Charge Date prior to the rider's termination. The monthly charge rate per \$1,000, monthly GDB Rider Factors, and the rider premium expense factors are shown in the policy's specifications pages.

The example below shows the operation of this rider.

Policy details:

Sex	Male
Risk Class	Non-Tobacco
Issue Age	30
Attained Age	37
Face Amount	\$250,000
Rider Option Amount	\$50,000

On the policy anniversary:

- The face amount can be increased by the rider option amount, from \$250,000 to \$300,000 because the insured has reached Attained Age 37 (which is a regular option date) on this policy anniversary.
- The increase segment gets the same risk class as the base policy (Non-Tobacco).
- Evidence of insurability is not required for this face amount increase.
- Monthly charges going forward will be based on the total face amount of \$300,000 and will be higher.

Overloan Protection Rider

This rider may prevent the policy from lapsing due to Policy Debt by providing a guaranteed paid-up insurance benefit upon exercise of this rider, subject to certain conditions being met. This rider is designed to enable an Owner with a substantially depleted Net Surrender Value, due to Policy Debt, to potentially avoid the negative tax consequences associated with the lapsing of the policy.

Note: The Internal Revenue Services (IRS) has not issued guidance on the tax consequences of exercising the Overloan Protection Rider. It is possible that the IRS could assert that the Policy Debt should be treated as a distribution, in whole or in part, when this rider is invoked. Consult with a tax adviser regarding the risks associated with invoking this rider.

This rider is included automatically with the policy on the Issue Date if the policy was issued using the Guideline Premium Test under Section 7702 of the IRC. The rider cannot be elected after the policy Issue Date or if the policy was issued using the Cash Value Accumulation Test under Section 7702 of the IRC.

This rider will be exercised when we have received the Owner's Written Request and all of the following requirements have been met.

- The policy is In Force and has reached the 15th policy anniversary date;
- The Insured is at least Attained Age 75;
- The Account Value of the policy must be at least \$100,000;
- The non-loaned Account Value is sufficient to pay the Rider Charge (described below);

- The policy is issued under the federal Guideline Premium Test under Section 7702 of the Internal Revenue Code, as amended;
- The policy is not, and exercise of this rider will not cause the policy to become, a “modified endowment contract” under the Internal Revenue Code;
- The Policy Debt exceeds a specified percentage of the Account Value. This percentage is called the Overloan Trigger Point and varies by the Attained Age of the Insured. The Overloan Trigger Point Points are shown below; and
- All amounts that can be withdrawn from the policy without the imposition of federal income tax must have already been taken as withdrawals.

To exercise the rider, Policy Debt must exceed a specified percentage of the Account Value called the Overloan Trigger Point. There is a one-time charge to exercise this rider. The charge is equal to the Account Value multiplied by a percentage that varies by the Insured’s Attained Age at the time the rider is exercised.

The Rider Charge Percentages and Overloan Trigger Points vary by the Insured’s Attained Age as shown below.

Attained Age	Rider Charge Percentage	Overloan Trigger Point
0-74	N/A	N/A
75	3.20%	95.8%
76	3.20%	95.8%
77	3.20%	95.8%
78	3.20%	95.8%
79	3.20%	95.8%
80	3.20%	95.8%
81	3.20%	95.8%
82	3.20%	95.8%
83	3.10%	95.9%
84	3.10%	95.9%
85	3.00%	96.0%
86	2.90%	96.1%
87	2.70%	96.3%
88	2.50%	96.5%
89	2.30%	96.7%
90	2.00%	97.0%
91	1.50%	97.5%
92	1.00%	98.0%
93	1.00%	98.0%
94	1.00%	98.0%
95+	1.00%	98.0%

If the non-loaned Account Value is insufficient to cover the Rider Charge, in order to exercise this rider, the Owner will be required to repay Policy Debt such that there is enough non-loaned Account Value to cover the Rider Charge. There is no charge for this rider unless it is exercised. There are no periodic charges for this rider after it is exercised.

When all of the policy conditions are met, and after we receive the Owner’s Written Request to exercise this rider and the Rider Charge has been applied, the policy’s death benefit will be adjusted in two steps:

- If the Death Benefit Option is not already Death Benefit Option 1, it will be changed to Death Benefit Option 1; and
- The Face Amount will equal the minimum death benefit after the Rider Charge is taken. If this Face Amount is not compliant with Section 7702 of the IRC, the Owner will not be allowed to exercise this rider.

If we determine that a current or future distribution will be required to maintain the policy's qualification as life insurance under Section 7702 of the IRC, the Owner will not be allowed to exercise this rider.

Exercising this rider will affect the policy and any other policy riders as follows:

- Interest will continue to accrue on the Policy Debt at the applicable interest rate under the policy;
- The loaned Account Value in the Guaranteed Principal Account will earn interest at the same rate as the loan interest rate;
- Any remaining non-loaned Account Value will be held in the Guaranteed Principal Account and will accrue interest at not less than the policy's minimum annual interest rate for the Guaranteed Principal Account, shown in the policy's specifications pages;
- All other policy riders will be terminated;
- No further Monthly Charges or additional charges will be taken from the Account Value;
- No further premiums will be allowed;
- No further policy loans may be taken and no further loan repayments may be made;
- No further policy changes, transfers of values or withdrawals will be allowed;
- The amount of the death benefit will be the maximum of (A) or (B), reduced by any Policy Debt, where:
 - (A) is the policy's adjusted Face Amount after this rider is exercised; and
 - (B) is the Minimum Death Benefit, calculated as of the date of the Insured's death

Note: The death benefit may be reduced (significantly) to the minimum amount permitted under the tax code to maintain the policy's status as a life insurance policy.

This rider will terminate when any of the following occurs:

- Before this rider is exercised, we receive a satisfactory Written Request from the Owner to terminate this rider. Such termination will be effective on the date we receive the Written Request; or
- Termination of the policy for any reason.

This rider cannot be reinstated if it was terminated at the Owner's request.

An example of the operation of the Overloan Protection Rider, including the Overloan Trigger Point, is set forth in Appendix F.

Substitute of Insured Rider

This rider allows you to substitute a new Insured in place of the current Insured under the policy.

A substitute of Insured is allowed if the policy is In Force, and all of the following conditions are met as of the Date of Substitution:

- the Owner has an insurable interest in the life of the substitute Insured;
- the Insured and substitute Insured are living on the date of substitution;
- the substitute Insured must not be over the maximum age allowed by us for the policy on the birthday nearest the date of substitution; and
- the age of the substitute Insured on the birthday nearest the Policy Date must not be less than the minimum age, or greater than the maximum age, allowed by us for the policy on the Policy Date.

Before the submission can become effective, we require:

- a written application for substitution, received by us at our Home Office or Administration Office;
- evidence of insurability of the substitute Insured that is satisfactory to us;
- payment to us of any premium required to avoid termination under the Grace Period and Termination provision of the policy; and
- payment of a fee of \$75.00.

All monthly charges after the substitution of the Insured will be based on the life and risk classification of the substitute Insured.

The rider will continue In Force to, but not including, the policy anniversary date on which the current Insured's Attained Age becomes 75. However, it will end automatically before that date at the time any one of the following occurs:

- change of the policy to a different policy under which the rider is not available;
- a substitution of insured is made under the terms of this rider;

- upon Written Request; or
- termination of the policy for any reason.

The rider is included automatically with the policy.

Substituting a new Insured under the policy may have adverse tax consequences. Please consult your tax advisor before you make your decision.

This rider is available for issue ages 0-74. It is included automatically at the time of issue.

An example of the operation of the Substitute of Insured Rider is set forth in Appendix G.

Waiver of Monthly Charges Rider

Under this rider, we will waive the monthly charges due for the policy while the Insured is totally and continuously disabled, as defined in the rider, for four months or longer. We will not return any premiums paid; however, we will adjust the Account Value according to the terms of the rider.

The amount of rider benefit that is credited to the GDB Measure is the greater of:

- the total rider benefit amount (policy monthly charges) allocated to the Account Value; and
- the GDB Monthly Factors.

Total Disability is defined as an incapacity of the Insured that:

- is caused by sickness or injury; and
- requires the Insured to be under a doctor's care; and
- begins while this rider is In Force; and
- for the first 60 months of any period of Total Disability, prevents the Insured from performing the substantial and material duties of the Insured's occupation; and
- after Total Disability has continued for 60 months, prevents the Insured from engaging in any occupation the Insured is or may become qualified to perform.

The benefits will end when any of the following occurs:

- the Insured is no longer totally disabled; or
- satisfactory proof of continued Total Disability is not given to us as required; or
- the Insured refuses or fails to have an examination we require; or
- the day before the Insured's Attained Age becomes 65, if Total Disability began when the Insured was Attained Age 60 or older.

Proof of claim must be received at our Administrative Office within one year after the notice of claim was given to us. However, if it was not reasonably possible to give us notice and/or proof of claim on time, the delay will not reduce the benefit if notice and/or proof are given as soon as reasonably possible. If notice is given more than one year from the Monthly Charge Date on which charges would have first been waived due to the Insured's Total Disability, we would only provide a benefit for the twelve Monthly Charge Dates that immediately precede the date notice is given to us.

This rider may be added at or after the time the policy is issued up to Insured's Attained Age 59. Satisfactory evidence of insurability is required at the time the rider is added. It cannot be added to a policy that has the Disability Benefit Rider or the Waiver of Specified Premium Rider.

The Owner may terminate this rider at any time. If the rider is terminated at the Owner's request, it cannot be reinstated. If not terminated at the Owner's request, the rider will continue In Force to, but not including, the policy anniversary date on which the Insured's Attained Age becomes 65.

There is a monthly charge for this rider. This charge is based on the Insured's Attained Age and gender. The charge each month is equal to the sum of the monthly charges for the month, excluding the charge for this rider, multiplied by the waiver charge rate for the Insured's Attained Age. The charge is deducted from the Account Value on each Monthly Charge Date prior to the rider's termination.

There is also a monthly GDB Rider Factor. The GDB Rider Factor is calculated similarly to the monthly rider charge but is based on the GDB waiver factor. The GDB Measure is reduced by the GDB Rider Factor on each Monthly Charge Date prior to the rider's termination.

The waiver charge rates and GDB waiver factors are shown in the policy's specifications pages.

The example below shows the operation of this rider.

- The Insured is Attained Age 55.
- The Insured has been totally and permanently disabled for at least 4 months.
- Account Value on Monthly Charge Date prior to the deduction of monthly charges is \$100,000.
- Total monthly charges are \$400.
- The rider waives the monthly charges, so the Account Value remains at \$100,000.

Waiver of Specified Premium Rider

Under this rider, we will credit the Account Value the greater of:

- the specified monthly premium or
- the monthly charges due for the policy

while the Insured is totally and continuously disabled, as defined in the rider, for four months or longer. We will not return any premiums paid; however, we will adjust the Account Value according to the terms of the rider.

The amount of rider benefit that is credited to GDB Measure is the greater of:

- the total rider benefit amount (specified monthly premium or monthly charges) allocated to the Account Value; and
- the GDB Monthly Factors.

Total Disability is defined as an incapacity of the Insured that:

- is caused by sickness or injury; and
- requires the Insured to be under a doctor's care; and
- begins while this rider is In Force; and
- for the first 60 months of any period of Total Disability, prevents the Insured from performing the substantial and material duties of the Insured's occupation; and
- after Total Disability has continued for 60 months, prevents the Insured from engaging in any occupation the Insured is or may become qualified to perform.

The benefits will end when any of the following occurs:

- the Insured is no longer totally disabled; or
- satisfactory proof of continued Total Disability is not given to us as required; or
- the Insured refuses or fails to have an examination we require; or
- the day before the Insured's Attained Age becomes 65, if Total Disability began when the Insured was Attained Age 60 or older.

Monthly charges will continue to be deducted on each Monthly Charge Date until a claim has been approved. For any of these Monthly Charge Dates that have already passed at the time a claim is approved, the Account Value will be credited to reflect provision of these monthly benefits.

If the disability began before the Insured was Attained Age 60 and continues to Attained Age 65, the rider benefit after Attained Age 65 will be the monthly charges for this policy.

Proof of claim must be received at our Administrative Office within one year after the notice of claim was given to us. However, if it was not reasonably possible to give us proof of claim on time, the delay will not reduce the benefit if proof is given as soon as reasonably possible.

This rider may be added at or after the time the policy is issued up to the Insured's Attained Age 59. Satisfactory evidence of insurability is required at the time the rider is added. It cannot be added to a policy that has the Disability Benefit Rider or the Waiver of Monthly Charges Rider.

The Owner may terminate this rider at any time. If the rider is terminated at the Owner's request, it cannot be reinstated. If not terminated at the Owner's request, the rider will continue In Force to, but not including, the policy anniversary date on which the Insured's Attained Age becomes 65.

There is a monthly charge for this rider, which is based on the Insured's Attained Age and gender, and on the benefits provided. The charge each month is the greater of:

- the specified benefit amount charge, which is equal to the specified monthly benefit multiplied by the specified benefit charge rate for the Insured's Attained Age; and
- the waiver charge, which is equal to the sum of the monthly charges for the month, excluding the charge for this rider, multiplied by the waiver charge rate for the Insured's Attained Age.

The charge is deducted from the Account Value on each Monthly Charge Date prior to the rider's termination.

There is also a monthly GDB Rider Factor. The GDB Rider Factor is calculated similarly to the monthly rider charge but is based on the greater of the GDB specified benefit factor and the GDB waiver factor. The GDB Measure is reduced by the GDB Rider Factor on each Monthly Charge Date prior to the rider's termination.

The specified benefit charge rates, waiver charge rates, GDB specified benefit factors, and GDB waiver factors are shown in the policy's specifications pages.

The example below shows the operation of this rider.

- The specified monthly benefit is \$500.
- The Insured is Attained Age 55.
- The Insured has been totally and permanently disabled for at least 4 months.
- Account Value on the Monthly Charge Date prior to the deduction of monthly charges is \$100,000.
- Total monthly charges are \$400.
- The rider credits to the Account Value the greater of the specified monthly benefit (\$500 for this example) and the monthly charges (\$400 for this example). The impact to the Account Value is as follows:

\$100,000	Starting Account Value
+ \$500	Rider Benefit
- \$400	Monthly Charges
\$100,100	Ending Account Value

Right to Convert or Exchange

Subject to product and state availability, the policy allows the Owner to convert the policy if certain conditions are met. Under the Right to Convert To A Whole Life Insurance Policy Endorsement, the Owner may convert the policy to a new whole life insurance policy that we make available without providing evidence of insurability, and we will waive surrender charges. The Face Amount of the new policy must equal the total Face Amount of this policy on the conversion date. The entire value of this policy must be converted to the new policy. The conversion period begins after the second policy anniversary and ends on the tenth policy anniversary or Attained Age 65, whichever is earlier. In addition, no conversion is permitted within the two years following the effective date of a Face Amount increase or reinstatement. This endorsement is automatically added at the time the policy is issued for issue ages 62 and below.

Adjustment to Surrender Charges Endorsement (for internal replacements)

This endorsement allows the Company to waive surrender charges if an Owner wishes to exchange this policy for a qualifying non-variable life insurance policy offered by MassMutual or one of its subsidiaries provided the following conditions are met:

- On the date of the exchange, the Net Surrender Value of the new policy must be less than or equal to the Net Surrender Value of the replaced policy;
- The Face Amount of the new policy must be equal to or greater than the Face Amount of the replaced policy; and
- The entire value of the replaced policy must be put into the new policy.

This endorsement is automatically added at the time the policy is issued. There is no charge for this endorsement.

We require a written application and evidence of insurability satisfactory to us for the new policy. There is no guarantee the new policy will be issued. We reserve the right to require repayment of any loans and loan interest.

We have the right to modify, suspend, or terminate any replacement program at any time without prior notification. This right does not apply to policies to which the endorsement has already been added.

Adjustment to Surrender Charges Endorsement

This endorsement allows the Company to waive surrender charges if an Owner wishes to surrender this policy in full provided the following conditions are met:

- The policy is In Force;
- The policy is surrendered during the first five policy years (including surrenders under settlement options);
- No loans have been taken against the policy;
- No withdrawals have been taken from the policy; and
- The policy has not been assigned after issue.

We require a written application and evidence of insurability satisfactory to us to attach this endorsement to the policy. We also charge a one-time fee of \$150 to add this endorsement. The endorsement is available for business cases where the annual policy premium for the case equals or exceeds \$100,000. The endorsement is not available on policies intended for personal use or where the annual policy premium for the case is less than \$100,000. A case is defined as one or more policies with a single business owner. This endorsement is only available for attachment at the time the policy is issued.

It may not be in your best interest to surrender an existing life insurance policy in connection with the purchase of a new life insurance policy.

For more information, please contact your registered representative or call our Administrative Office.

An example of the operation of the Right to Convert To a Whole Life Insurance Policy Endorsement is set forth in Appendix H.

Accessing the Money in Your Policy

Withdrawals

After the first policy year, the maximum amount you may withdraw is 75% of the current Net Surrender Value. This amount is referred to as the maximum partial withdrawal. The minimum amount you may withdraw is \$100. We do not charge a withdrawal fee or surrender charge for a withdrawal.

You can make a withdrawal by sending us a Written Request in Good Order on our partial withdrawal request form.

You must state in your request form the dollar amount and corresponding Separate Account division(s) from which you want the withdrawal made. If you choose to withdraw an amount from the GPA, it may not exceed the non-loaned Account Value in the GPA. If you request a maximum partial withdrawal, the amount of the withdrawal will be deducted proportionately from the available Separate Account divisions and the non-loaned Account Value in the GPA.

A withdrawal will reduce your policy's Account Value by the amount withdrawn. If the policy's Net Surrender Value is reduced to a point where it cannot meet a monthly deduction, your policy may terminate. A withdrawal will also reduce the GDB Measure and, consequently, in most cases, will negatively impact the GDB Safety Test. Please see the "Guaranteed Death Benefit (GDB) Safety Test" and "Guaranteed Death Benefit (GDB) Measure" sub-sections in the "Policy Termination and Reinstatement" section for additional information.

A withdrawal may also: 1) reduce your policy's Face Amount; 2) have adverse tax consequences; and 3) change the premium limitations. For more information on tax implications, please see the "Federal Income Tax Considerations" section and for more information on premium limitations, please see "Premium Limitations" in the "Premiums" section.

Example:

Assume death benefit option 1 is in effect and prior to the withdrawal the policy has a Face Amount of \$600,000 and an Account Value of \$120,000. If you make a withdrawal of \$30,000, the Account Value will be reduced to \$90,000 and the Face Amount will be reduced to \$570,000. The withdrawal payment will be \$30,000.

If your policy's Face Amount is decreased because of a withdrawal, surrender charges will not apply. We may reduce the Face Amount of your policy unless you have chosen death benefit option 2 or we receive evidence of insurability satisfactory to us.

The amount of the reduction will be the amount of the withdrawal.

There is one exception:

If the death benefit provided by the death benefit option immediately before the withdrawal is equal to the minimum death benefit, either the Face Amount reduction will be limited or we will not reduce the Face Amount.

We will not reduce the Face Amount if the death benefit immediately after the withdrawal would be the new minimum death benefit (based on the reduced Account Value). Otherwise, the Face Amount reduction will be based on a formula.

The formula considers the smallest withdrawal amount that would bring the minimum death benefit below the death benefit provided by the death benefit option. The formula reduces the Face Amount by the excess of the requested withdrawal amount over this smallest withdrawal amount. (Minimum death benefit, death benefit, and death benefit options are explained in the "Death Benefit" section.)

We will not allow a withdrawal if it would result in a reduction of the Face Amount to less than the minimum Face Amount.

Withdrawal requests where evidence of insurability is not required will be effective on the Valuation Date we receive the Written Request in Good Order at our Administrative Office. Withdrawal requests where evidence of insurability is required will be effective on the Valuation Date we approve the evidence of insurability application provided that the remainder of the withdrawal request is in Good Order on that date. Withdrawal requests determined to be in Good Order on a non-Valuation Date or after the end of a Valuation Date, will be effective as of the next Valuation Date.

If a withdrawal would cause the policy to become a MEC, a MEC Notice and Acknowledgement Form will be required before the withdrawal will be processed. For more information on MECs, please see the "Federal Income Tax Considerations" section.

We will pay any withdrawal amounts within seven calendar days of the withdrawal effective date unless we are required to suspend or postpone withdrawal payments. Please see "Other Policy Rights and Limitations" in the "Other Information" section for additional information.

Surrenders

You may surrender your policy to us at any time while the policy is In Force. We will pay you its Net Surrender Value. To surrender your policy, you must submit a completed surrender form and any other forms we may require.

The surrender will be effective on the Valuation Date we receive all required, fully completed forms in Good Order at our Administrative Office. If the surrender involves an exchange or transfer of assets to a policy issued by another financial institution or insurance company (not MassMutual or any of its subsidiaries), we also will require a completed absolute assignment form and any state mandated replacement paperwork. If we receive your request in Good Order on a non-Valuation Date or after the end of a Valuation Date, your surrender request will be effective as of the next Valuation Date.

We will pay any surrender amounts within seven calendar days of the surrender effective date, unless we are required to suspend or postpone surrender payments. Please see "Other Policy Rights and Limitations" in the "Other Information" section for additional information.

The policy terminates as of the effective date of the surrender and cannot be reinstated unless required by law. Surrendering the policy may result in adverse tax consequences. These tax consequences are discussed in the "Federal Income Tax Considerations" section.

Net Surrender Value

The Net Surrender Value of the policy is equal to:

- the Account Value; less
- any surrender charges that apply; and less
- any Policy Debt.

Loans

You may take a loan from the policy once the Account Value exceeds the total of any surrender charges. We charge interest on policy loans that is added to the Policy Debt. We refer to all outstanding loans plus accrued interest as Policy Debt. You may repay all or part of your Policy Debt, but you are not required to do so.

We currently allow loans in all policy years. The maximum loan amount allowed at any time is the amount that, with accrued loan interest calculated to the next policy anniversary date, will equal your Account Value less any surrender charge. The maximum amount available for a loan is the maximum loan amount allowed less any existing Policy Debt.

Taking a loan from your policy has several risks:

- *it may increase the risk that your policy will terminate;*
- *it will have a permanent effect on your policy's Net Surrender Value;*
- *it may increase the amount of premium needed to keep your policy In Force;*
- *it will reduce the death benefit proceeds; and*
- *it has potential adverse tax consequences.*

The risks that can result from taking a policy loan may be reduced if you repay Policy Debt. The tax consequences of loans are discussed in the "Federal Income Tax Considerations" section.

Requesting a Loan

You may take a loan by completing a loan request form and sending it to our Administrative Office, or by other means we authorize, subject to certain restrictions. You must assign the policy to us as collateral for the loan.

Once we have processed the loan request and deducted the proportionate amounts from the Separate Account divisions and/or the GPA, we consider the loan effective and outstanding. If, after we process the loan request, you decide not to cash the check, you may submit a Written Request to our Administrative Office to repay the loan amount. The loan repayment will be effective on the Valuation Date the Written Request is received in Good Order at our Administrative Office. Loan interest begins to accrue as soon as the loan is effective. Therefore, loan interest will accrue even if the loan check is not cashed. Please see "Loan Interest Charged" below for additional information.

Payment of Proceeds

Loans will be effective on the Valuation Date we receive your loan request form and all other required documents in Good Order at our Administrative Office. If we receive your request in Good Order on a non-Valuation Date or after the end of a Valuation Date, your loan request will be effective as of the next Valuation Date.

On the effective date of the loan, we deduct proportionate amounts from the Separate Account divisions and/or the GPA (excluding any outstanding loans) and transfer the resulting dollar amounts to the loaned portion of the GPA. We will pay any loan amounts within 7 calendar days of the loan effective date, unless we are required to suspend or postpone loan amounts. Please see the "Other Policy Rights and Limitations" sub-section in the "Other Information" section for additional information.

Interest Credited on the Loaned Value

When you take a loan, we transfer an amount equal to the loan to the loaned portion of the GPA. This amount earns interest at a rate equal to the greater of:

- 1%; or
- the loan interest rate less the current loan interest rate expense charge.

On each policy anniversary, the interest earned on any outstanding loan is applied to the divisions of the Separate Account and the GPA according to your current premium allocation instructions.

Beginning in policy year 11, we intend to credit interest to loaned value based on a current loan interest rate expense charge of 0.00%. This means the interest charged on policy loans in policy year 11 and after will be equal to interest credited to loaned value on a current basis. We reserve the right to increase the loan interest rate expense charge in order to ensure your loan is not treated as a taxable distribution under federal income tax laws, which may change over time.

Loan Interest Charged

All Policy Debt is assessed loan interest at a fixed rate of 4%.

Interest on policy loans accrues daily and becomes part of the Policy Debt as it accrues. As part of the loan, it will bear interest at the loan rate. Therefore, loan interest will accrue even if the loan check is not cashed. Loan interest is due on each policy anniversary. If you do not pay it when it is due, the interest is deducted proportionately from the divisions of the Separate Account and the GPA according to the then current value in those Separate Account divisions and the GPA and added to the loan. If the policy's Account Value cannot cover the loan interest due, the policy may lapse. Please see the "Policy Termination and Reinstatement" section.

Effect of a Loan on the Values of the Policy

A policy loan negatively affects policy values because we reduce the death benefit and Net Surrender Value by the amount of the Policy Debt.

Also, a policy loan, whether or not repaid, has a permanent effect on your policy's Net Surrender Value because, as long as a loan is outstanding, a portion of the Account Value equal to the loan is invested in the GPA. This amount does not participate in the investment performance of the Separate Account or receive the current interest rates credited to the non-loaned portion of the GPA. The longer a loan is outstanding, the greater the effect on your Net Surrender Value will be. In addition, if you do not repay a loan, your outstanding Policy Debt will reduce the death benefit and Net Surrender Value that might otherwise be payable.

Whenever you reach your Policy Debt Limit, your policy is at risk of terminating, even if the GDB Safety Test is met. Your Policy Debt Limit is reached when total Policy Debt exceeds the Account Value less surrender charges. If this happens, we will notify you in writing. The "Policy Termination and Reinstatement" section explains more completely what will happen if your policy is at risk of terminating. Please note that Policy Termination with an outstanding loan also can result in adverse tax consequences. Please see the "Federal Income Tax Considerations" section for additional information.

As you repay a loan, the amount in the non-loaned section of the GPA will increase because we allocate loan repayments first to the GPA until you have repaid all loan amounts originally deducted from that account. Additionally, your ability to transfer funds out of the GPA following a loan repayment will be limited due to certain transfer restrictions. Please see the "Transfers" section for additional information.

Repayment of Loans

All or part of your Policy Debt may be repaid at any time while the Insured is living and while the policy is In Force. We will increase the death benefit, Net Surrender Value, and GDB Measure under the policy by the amount of the repayment.

A loan repayment must be identified as such or we will consider it a premium payment. We will apply the loan repayment on the Valuation Date it is received in Good Order. If we receive the loan repayment in Good Order on a non-Valuation Date or after the end of a Valuation Date, the loan repayment is effective as of the next Valuation Date. If a loan repayment is dishonored by your bank after we have applied the loan repayment to your policy, the transaction will be deemed void and your loan repayment will be reversed.

You may initiate single or recurring loan repayments through our secure website (www.MassMutual.com) or by calling our Administrative Office and authorizing an electronic draft from your bank account. Please see the "Electronic Premium Payments" sub-section in the "Premiums" section for additional information. In addition, loan repayments may be sent to MassMutual, PO Box 92483, Chicago, IL 60675-2483.

Any loan repayment made within 30 days prior to the policy anniversary date will be used to first pay policy loan interest due. For any other loan repayment, we will first transfer values equal to the repayment amount from the loaned portion of the GPA to the non-loaned portion of the GPA until all loan amounts originally deducted from that account have been repaid. We will allocate any additional loan repayments by transferring values equal to the repayment amount from the loaned portion of the GPA to the non-loaned portion of the GPA and/or the applicable Separate Account divisions, based on your premium allocation instructions in effect at that time. When we receive a loan repayment and only a portion is needed to fully repay the loan, we will apply any excess as premium and allocate it according to the current premium

allocation instructions after deduction of the premium expense charge. Any subsequent loan repayments received after the loan is fully repaid will be refunded to the premium payer.

We will deduct any outstanding Policy Debt from:

- the proceeds payable on the death of the Insured;
- the proceeds payable when you surrender the policy; or
- the Account Value if the policy lapses.

In these situations, we will then consider the Policy Debt paid.

Policy Termination and Reinstatement

If there is no Policy Debt, the policy will terminate without value at the end of the Grace Period if:

- its Net Surrender Value on a Monthly Charge Date cannot cover the monthly charges due; and
- the GDB Safety Test is not met or is no longer in effect on that date because the policy has reached the GDB Period End Date.

If there is Policy Debt, the policy will terminate without value at the end of the Grace Period if:

- the Policy Debt Limit is reached, even if the GDB Safety Test is met. The Policy Debt Limit is reached when the Policy Debt (outstanding loans plus accrued interest) exceeds the Account Value less any surrender charges that may apply: (1) on a Monthly Charge Date or (2) on the Valuation Date a premium payment is received, if the policy is in the Grace Period.

Guaranteed Death Benefit (GDB) Safety Test

Except as provided below, the GDB Safety Test is a no-lapse guarantee that allows you to keep the policy In Force until the GDB Period End Date regardless of the value of the policy. The GDB Period End Date is shown in the policy's specifications pages and is the policy anniversary on which the Insured reaches Attained Age 85.

The GDB Safety Test is met if, on a Monthly Charge Date, the GDB Measure is greater than or equal to zero.

Prior to the GDB Period End Date, if the GDB Safety Test is met and the Account Value is insufficient to cover the monthly charges due, the monthly charges due will be reduced to an amount equal to the Account Value. The Account Value will never be less than zero. However, even if the GDB Safety Test is met, this policy may terminate if the Policy Debt Limit is reached and the amount of premium needed to avoid termination is not paid by the end of the Grace Period. If the GDB Safety Test is not met and the Net Surrender Value is sufficient to cover the monthly charges due, the policy will not terminate. The GDB Safety Test will still be available and can be satisfied in the future by paying an additional premium payment prior to the GDB Period End Date. The additional premium would be the amount needed to increase the GDB Measure to an amount equal to zero.

On and after the GDB Period End Date, the GDB Safety Test is no longer in effect. As a result, this policy will remain In Force as long as the Net Surrender Value is sufficient to pay the monthly charges due. However, if the Net Surrender Value is insufficient to pay monthly charges due, the policy will enter the Grace Period and an additional premium payment will be required to keep this policy In Force.

Examples of the operation of the GDB Safety Test appear in Appendix B.

Guaranteed Death Benefit (GDB) Measure

The GDB Measure is a reference measure that is only used to determine whether or not the GDB Safety Test is met. The GDB Measure is not used to determine the policy's Account Value or death benefit, and is not available for Monthly Charges, loans or surrenders.

The GDB Measure is equal to:

- Net Premiums allocated to the Account Value; less
- any amounts withdrawn; less
- any surrender charges due to any decreases in the Face Amount; less

- loans; less
- the GDB Monthly Factors; plus
- loans repaid; plus
- interest credited to the Account Value as a result of any policy loan; plus
- interest on the above amounts credited at the GDB Measure Interest Factor shown in the policy's specifications pages.

The GDB Monthly Factors are discussed below.

Please note that each of the following actions that can be taken by you will affect the GDB Measure and, therefore, will affect your policy's ability to satisfy the GDB Safety Test.

Actions having a positive effect on the GDB Measure include:

- paying more premium than planned;
- paying premium earlier than planned;
- Face Amount decreases;
- death benefit option changes resulting in a decrease in the Face Amount;
- loan repayments;
- terminating a rider for which there is a monthly charge; and
- changing to a more favorable risk class or rating.

Actions having a negative effect on the GDB Measure include:

- paying less premium than planned;
- paying premium later than planned;
- surrender charges assessed on elected Face Amount decreases;
- Face Amount increases;
- death benefit option changes resulting in an increase in the Face Amount; making withdrawals;
- taking policy loans; and
- adding a rider for which there is a monthly charge.

If the change or transaction reduces the GDB Measure, your policy may not meet the GDB Safety Test on the Monthly Charge Date that is on or after the effective date of the change or transaction.

Before making a policy change or completing a policy transaction, you should contact your registered representative and request a new policy illustration.

Guaranteed Death Benefit (GDB) Monthly Factors

The GDB Monthly Factors are used only in determining the GDB Measure; they do not impact the policy's Account Value. The GDB Monthly Factors reduce the GDB Measure on each Monthly Charge Date prior to the GDB Period End Date, and on the date we receive the amount of premium needed to avoid termination. There are four GDB Monthly Factors:

- (1) GDB Monthly Administrative Factor shown in the policy's specifications pages.
- (2) The GDB Monthly Face Amount Factor which is the policy's Face Amount, divided by 1,000, and multiplied by the GDB Monthly Face Amount Factor shown in the policy's specifications pages.
- (3) The GDB Monthly Insurance Factor and the GDB Measure risk are described in detail in the policy. Generally, the GDB Monthly Insurance Factor is calculated by multiplying the GDB Measure risk by the applicable per-thousand GDB Monthly Insurance Factor. A table of GDB Monthly Insurance Factors per-thousand of GDB Measure risk is included in the policy's specifications pages. If there are two or more tables of per-thousand GDB Monthly Insurance Factors, the GDB Measure risk will be allocated to each table in proportion to the Face Amount allocated to that table relative to the policy's total Face Amount.
- (4) Any applicable GDB Rider Factors which are described in the policy's specifications pages attached to your policy.

The GDB Monthly Factors are established when the policy or rider is issued and cannot be changed by us.

Grace Period

Before your policy terminates, we allow a Grace Period during which you can pay the amount of premium needed to avoid termination. We will mail you a notice stating this amount.

If there is no Policy Debt, the amount of premium needed to avoid Policy Termination will be the lesser of:

- the amount needed to satisfy the GDB Safety Test; or
- the amount needed to increase the Net Surrender Value to an amount sufficient to cover the monthly charges due.

If there is Policy Debt, the amount of premium needed to avoid Policy Termination will be the amount needed to bring the Policy Debt back within the Policy Debt limit (Policy Debt cannot exceed the Account Value less surrender charges that may apply: (1) on a Monthly Charge Date or (2) on the Valuation Date a premium payment is received, if the policy is in the Grace Period).

The Grace Period begins on the date the monthly charges are due. It ends the later of:

- 61 days after the date it begins; and
- 31 days after we mail you the notice.

During the Grace Period, the policy will stay In Force. If the Insured dies during this period and the amount of premium needed to avoid Policy Termination has not been paid, we will pay the death benefit proceeds, reduced by the amount of premium needed to avoid Policy Termination and any Policy Debt.

If we do not receive the required payment by the end of the Grace Period, the policy will terminate without value at the end of the Grace Period. We will return a premium payment if it is less than the minimum amount needed to avoid termination.

During the Grace Period, certain financial transactions cannot be processed (transfers, withdrawals, loans). You must pay the premium due before subsequent financial transactions can be processed.

The Company's mailing of a Policy Termination or a lapse notice to you constitutes sufficient notice of cancellation of coverage.

Reinstating Your Policy

If your policy terminates, you may be able to reinstate it. You may not, however, reinstate your policy if:

- you surrendered it (unless required by law); or
- five years have passed since it terminated.

To reinstate your policy, we will need:

- a written application to reinstate;
- evidence, satisfactory to us, that the Insured is still insurable;
- a premium payment sufficient to keep the policy In Force for three months after reinstatement. The minimum amount of this premium payment will be quoted upon request; and
- a MEC Notice and Acknowledgement form, if the reinstated policy would be a MEC (please see "Policy After You Reinstates" below, and the "Federal Income Tax Considerations" section).

We will not apply the required premium for reinstatement to any investment option until we have approved your reinstatement application.

The policy will be reinstated on the Monthly Charge Date that is on, or precedes, the later of:

- the date we approve your application; or
- the date we receive the premium required to reinstate the policy.

Policy After You Reinstate

If you reinstate your policy, the Face Amount will be the same as it was when the policy terminated. Your Account Value will be:

- (1) the premium paid to reinstate your policy, less
- (2) the premium expense charge, less
- (3) applicable monthly charges due.

Additionally, if the policy lapsed during a period when a surrender charge applied and the surrender charge was taken at that time, then the applicable surrender charge will not be reinstated.

We do not reinstate Policy Debt.

If reinstatement occurs prior to the GDB Period End Date, the GDB Safety Test will apply and the GDB Measure will be set equal to:

- the GDB Measure at time of lapse; plus
- the reinstatement premium paid; less
- any premium expense charge; less
- any GDB Monthly Charge Factors.

If you reinstate your policy, it may become a MEC under current federal tax law. Please consult your tax adviser. More information on MECs is included in the “Federal Income Tax Considerations” section.

Reinstatement will not reverse any adverse tax consequences caused by Policy Termination unless it occurs within 90 days of the end of the Grace Period. In no situation, however, can adverse tax consequences that are a result of Policy Debt be reversed.

Federal Income Tax Considerations

The information in this prospectus is general and is not an exhaustive discussion of all tax questions that might arise under the policy. The information is not written or intended as tax or legal advice. You are encouraged to seek legal and tax advice from a qualified tax adviser. In addition, we do not profess to know the likelihood that current federal income tax laws and Treasury Regulations or the current interpretations of the Internal Revenue Code of 1986, as amended (IRC), Regulations, and other guidance will continue. We cannot make any guarantee regarding the future tax treatment of any policy. We reserve the right to make changes in the policy to assure that it continues to qualify as life insurance for tax purposes.

No attempt is made in this prospectus to consider any applicable state or other tax laws.

Policy Proceeds and Loans

We believe the policy meets the IRC definition of life insurance. Therefore, the death benefit under the policy generally is excludible from the beneficiary’s gross income under federal tax law. If you sell the policy or there is a transfer for value under IRC Section 101(a)(2), all or a portion of the death benefit under the policy may become taxable unless an exception applies.

As a life insurance policy under the IRC, the gain accumulated in the policy is not taxed until it is withdrawn or otherwise accessed. Any gain withdrawn from the policy is taxed as ordinary income.

From time to time, the Company may be entitled to certain tax benefits related to the investment of Company assets, including those comprising the policy value. These tax benefits, which may include foreign tax credits and the corporate dividends received deduction, are not passed back to you since the Company is the owner of the assets from which the tax benefits are derived.

The following information applies only to a policy that is not a MEC under federal tax law. Please see “Modified Endowment Contracts” later in this section for information about MECs.

As a general rule, withdrawals are taxable only to the extent that the amounts received exceed your cost basis (also referred to as investment in the contract) in the policy. Cost basis equals the sum of the premiums and other consideration paid for the policy less any prior withdrawals under the policy that were not subject to income taxation. For example, if your cost basis in the policy is \$10,000, amounts received under the policy will not be taxable as income until they exceed \$10,000 in the aggregate; then, only the excess over \$10,000 is taxable.

However, special rules apply to certain withdrawals associated with a decrease in the policy death benefit. The IRC provides that if:

- there is a reduction of benefits during the first 15 years after a policy is issued; and
- there is a cash distribution associated with the reduction,

you may be taxed on all or a part of the amount distributed. After 15 years, cash distributions are not subject to federal income tax, except to the extent they exceed your cost basis.

If you surrender the policy for its Net Surrender Value, all or a portion of the distribution may be taxable as ordinary income. The distribution represents income to the extent the value received exceeds your cost basis in the policy. For this calculation, the value received is equal to the Account Value, reduced by any surrender charges, but not reduced by any outstanding Policy Debt. Therefore, if there is a loan on the policy when the policy is surrendered, the loan will reduce the cash actually paid to you but will not reduce the amount you must include in your taxable income as a result of the surrender.

To illustrate how Policy Termination with an outstanding loan can result in adverse tax consequences as described above, suppose that your premiums paid (that is, your cost basis) in the policy is \$10,000, your Account Value is \$15,000, you have no surrender charges, and you have received no other distributions and taken no withdrawals under the policy. If, in this example, you have an outstanding Policy Debt of \$14,000, you would receive a payment equal to the Net Surrender Value of only \$1,000; but you still would have taxable income at the time of surrender equal to \$5,000 (\$15,000 Account Value minus \$10,000 cost basis).

The potential that Policy Debt will cause taxable income from Policy Termination to exceed the payment received at termination also may occur if the policy terminates without value. Factors that may contribute to these potential situations include:

- amount of outstanding Policy Debt at or near the maximum loan value;
- unfavorable investment results affecting your policy Account Value;
- increasing monthly policy charge rates due to increasing Attained Age of the Insured;
- high or increasing amount of Insurance Risk, depending on death benefit option and changing Account Value; and
- increasing loan interest rate expense charge if the adjustable policy loan rate is in effect.

One example occurs when the Policy Debt Limit is reached. If, using the previous example, the Account Value were to decrease to \$14,000 due to unfavorable investment results, and the policy were to terminate because the Policy Debt limit is reached, the policy would terminate without any cash paid to you; but your taxable income from the policy at that time would be \$4,000 (\$14,000 Account Value minus \$10,000 cost basis). The policy also may terminate without value if unpaid policy loan interest increases the outstanding Policy Debt to reach the Policy Debt Limit.

To avoid Policy Terminations that may give rise to significant income tax liability, you may need to make substantial premium payments or loan repayments to keep your policy In Force.

You can reduce the likelihood that these situations will occur by considering these risks before taking a policy loan. If you take a policy loan, you should monitor the status of your policy with your registered representative and your tax adviser at least annually, and take appropriate preventative action.

We believe that, under current tax law, any loan taken under the policy will be treated as Policy Debt of the Owner. If your policy is not a MEC, the loan will not be considered income to you when received.

Interest on policy loans used for personal purposes generally is not tax-deductible. However, you may be able to deduct this interest if the loan proceeds are used for “trade or business” or “investment” purposes, provided that you meet certain narrow criteria.

If the Owner is a corporation or other business, additional restrictions may apply. For example, there are limits on interest deductions available for loans against a business-owned policy. In addition, the IRC restricts the ability of a business to deduct interest on debt totally unrelated to any life insurance, if the business holds a cash value policy on the life of certain Insureds.

Investor Control and Diversification

There are a number of tax benefits associated with variable life insurance policies. Gains on the Net Investment Experience of the Separate Account are deferred until withdrawn or otherwise accessed, and gains on transfers among divisions of the Separate Account also are deferred. For these benefits to continue, the policy must continue to qualify as life insurance. In addition to other requirements, federal tax law dictates that the insurer, and not the Owner, has control of the investments underlying the various Separate Account divisions for the policy to qualify as life insurance.

You may make transfers among divisions of the Separate Account, but you may not direct the investments each Separate Account division makes. If the IRS were to conclude that you, as the investor, have control over these investments, then the policy would no longer qualify as life insurance and you would be taxed on the gain in the policy as it is earned rather than when it is withdrawn or otherwise accessed.

The IRS has provided some guidance on investor control, but many issues remain unclear. One such issue is whether an Owner can have too much investor control if the variable life policy offers a large number of investment divisions in which to invest Account Values. We do not know if the IRS will provide any further guidance on the issue. We do not know if any such guidance would apply retroactively to policies already In Force.

Consequently, we reserve the right to further limit Net Premium allocations and transfers under the policy, so that it will not lose its qualification as life insurance due to investor control.

In addition, the IRC requires that the investments of the Separate Account divisions be “adequately diversified” in order for a policy to be treated as a life insurance contract for federal income tax purposes. It is intended that the Separate Account divisions, through their underlying investment Funds, will satisfy these diversification requirements.

Modified Endowment Contracts

If a policy is a Modified Endowment Contract (MEC) under federal tax law, loans, withdrawals, and other amounts distributed under the policy are taxable to the extent of any income accumulated in the policy. The policy income is the excess of the Account Value (both loaned and non-loaned) over your cost basis. For example, if your cost basis in the policy is \$10,000 and the Account Value is \$15,000, then all distributions up to \$5,000 (the accumulated policy income) are immediately taxable as income when withdrawn or otherwise accessed. The collateral assignment of a MEC is also treated as a taxable distribution. Death benefits paid under a MEC, however, are not taxed any differently than death benefits payable under other life insurance contracts.

If any amount is taxable as a distribution of income under a MEC, it may also be subject to a 10% penalty tax. There are a few exceptions to the additional penalty tax for distributions to individual Owners. The penalty tax will not apply to distributions:

- made on or after the date the taxpayer attains age 59½; or
- made because the taxpayer became disabled; or
- made as part of a series of substantially equal periodic payments paid for the life or life expectancy of the taxpayer, or the joint lives or joint life expectancies of the taxpayer and the taxpayer’s beneficiary. These payments must be made at least annually.

A policy is a MEC if it satisfies the IRC definition of life insurance but fails the “7-pay test.” A policy fails this test if:

- (1) the accumulated amount paid under the policy at any time during the first seven contract years *exceeds*
- (2) the total premiums that would have been payable at that time for a policy providing the same benefits guaranteed after the payment of seven level annual premiums.

A life insurance policy will always be treated as a MEC if it is issued as part of an IRC section 1035 tax-free exchange from a life insurance policy that was already a MEC.

If certain changes are made to a policy, we will retest it to determine if it has become a MEC. For example, if you reduce the death benefit during a 7-pay testing period, we will retest the policy using the lower death benefit amount, from the start of that testing period. If the reduction in death benefit causes the policy to fail the 7-pay test for any prior policy year, the policy will be treated as a MEC beginning in the policy year in which the reduction takes place.

Any reduction in benefits attributable to the non-payment of premiums will not be taken into account if the benefits are reinstated within 90 days after the reduction in such benefit.

We will retest whenever there is a “material change” to the policy while it is In Force. If there is a material change, a new 7-pay test period begins at that time. The term “material change” includes certain increases in death benefits.

Since the policy provides for flexible premium payments, we have procedures for determining whether increases in death benefits or additional premium payments cause the start of a new seven-year test period or cause the policy to become a MEC.

Once a policy fails the 7-pay test, loans and distributions taken in the year of failure and in future years are taxable as distributions from a MEC to the extent of gain in the policy. In addition, the IRS has authority to apply the MEC taxation rules to loans and other distributions received in anticipation of the policy failing the 7-pay test. The IRC authorizes the issuance of regulations providing that a loan or distribution, if taken within two years prior to the policy’s becoming a MEC, shall be treated as received in anticipation of failing the 7-pay test. However, such written authority has not yet been issued.

Under current circumstances, a loan, collateral assignment, or other distribution under a MEC may be taxable even though it exceeds the amount of gain accumulated in that particular policy. For purposes of determining the amount of taxable income received from a MEC, the law considers the total of all gain in all the MECs issued within the same calendar year to the same Owner by an insurer and its affiliates. Loans, collateral assignments, and distributions from any one MEC are taxable to the extent of this total gain.

Other Tax Considerations

A change of the Owner or an Insured, or an exchange or assignment of the policy, may cause the Owner to recognize taxable income.

The impact of federal income taxes on values under the policy and on the benefit to you or your beneficiary depends on MassMutual’s tax status and on the tax status of the individual concerned. We currently do not make any charge against the Separate Account for federal income taxes. We may make such a charge eventually in order to recover the future federal income tax liability to the Separate Account.

Under current laws in several states, we may incur state and local taxes (in addition to premium taxes). These taxes are not now significant and we are not currently charging for them. If they increase, we may deduct charges for such taxes.

Federal estate and gift taxes, state and local estate taxes, and other taxes depend on the circumstances of each Owner or beneficiary.

Qualified Plans

The policy may be used as part of certain tax-qualified and/or ERISA employee benefit plans. Since the rules concerning the use of a policy with such plans are complex, you should not use the policy in this way until you have consulted a competent tax adviser. You may not use the policy as part of an Individual Retirement Account (IRA) or as part of a Tax-Sheltered Annuity (TSA) or an IRC Section 403(b) custodial account.

While the policy is owned by the qualified plan, we will only pay amounts under the policy while the Insured is still living (e.g., withdrawals, surrenders, and loans) to the qualified plan trustee or plan administrator. We will not make such payments directly to any other party, including the Insured participant. The only exception is for a Keogh plan, where the Insured participant is also the policy owner.

Employer-Owned Policies

The IRC contains certain notice and consent requirements for “employer-owned life insurance” policies. The IRC defines “employer-owned life insurance” as a life insurance contract:

- that is owned by a person or entity engaged in a trade or business (including policies owned by related or commonly controlled parties);
- insuring the life of a U.S. citizen or resident who is an employee on the date the contract is issued; and
- under which the policyholder is directly or indirectly a beneficiary.

The tax-free death benefit for employer-owned life insurance is limited to the amount of premiums paid unless certain notice and consent requirements are met. The notice requirements are met if, before the contract is issued, the employee is notified in writing of the following:

- the employer intends to insure the employee’s life;
- the maximum Face Amount for which the employee could be insured at the time the contract was issued; and
- the employer will be the beneficiary of any proceeds payable on the death of the employee.

Prior to issuance of the contract, the employee must provide written consent to being insured under the contract and to continuation of the coverage after employment terminates.

The law also imposes annual reporting and record keeping requirements for businesses owning employer-owned life insurance policies. The employer must maintain records of the employer's notice and the employee's consent, and must file certain annual reports with the IRS.

Provided that the notice and consent requirements are satisfied, the death proceeds of an employer-owned life insurance policy will generally be income tax-free in the following situations:

- (1) At the time the contract is issued, the insured employee is a director, highly compensated employee, or highly compensated individual within the meaning of IRC Section 101(j)(2)(A)(ii);
- (2) The Insured was an employee at any time during the 12-month period before his or her death;
- (3) The proceeds are paid to a member of the Insured's family, an individual who is the designated beneficiary of the Insured under the contract, a trust established for the benefit of any such member of the family or designated beneficiary, or the Insured's estate; or
- (4) The proceeds are used to purchase an equity interest in the employer from any of the persons described in (3).

Death proceeds that do not fall within one of the enumerated exceptions will be subject to ordinary income tax (even if the notice and consent requirements were met), and MassMutual will report payment of taxable proceeds to the IRS, where applicable.

Business Uses of Policy

Businesses can use the policies in various arrangements, including nonqualified deferred compensation or salary continuance plans, split dollar insurance plans, executive bonus plans, tax exempt and nonexempt welfare benefit plans, retiree medical benefit plans and others. The tax consequences of such plans may vary depending on the particular facts and circumstances. The Internal Revenue Service and Treasury have issued guidance that may substantially affect these arrangements. If you are purchasing the policy for any arrangement the value of which depends in part on its tax consequences, you should consult a qualified tax adviser.

Tax Shelter Regulations

Prospective Owners that are corporations should consult a tax adviser about the treatment of the policy under the Treasury Regulations applicable to corporate tax shelters.

Generation Skipping Transfer Tax Withholding

Under certain circumstances, the IRC may impose a "generation skipping transfer tax" when all or part of a life insurance policy is transferred to, or a death benefit is paid to, an individual two or more generations younger than the Owner. Regulations issued under the IRC may require us to deduct the tax from your policy, or from any applicable payment, and pay it directly to the IRS.

Withholding

To the extent that policy distributions are taxable, they are generally subject to withholding for the recipient's federal income tax liability. Recipients can generally elect, however, not to have tax withheld from distributions.

Life Insurance Purchases by Residents of Puerto Rico

Income received by residents of Puerto Rico under life insurance policies issued by a United States life insurance company is U.S.-source income that is generally subject to United States federal income tax.

Non-Resident Aliens and Foreign Entities

Generally, a distribution from a contract to a non-resident alien or foreign entity is subject to federal income tax withholding at a rate of 30% of the amount of the income that is distributed. A non-resident alien is a person who is neither a citizen, nor a resident, of the United States of America (U.S.). We are required to withhold the tax and send it to the

IRS. Some distributions to non-resident aliens or foreign entities may be subject to a lower (or no) tax if a treaty applies. In order to obtain the benefits of such a treaty, the non-resident alien must claim the treaty benefit on Form W-8BEN (or the equivalent entity form), providing us with:

- proof of residency (in accordance with IRS requirements); and
- the applicable taxpayer identification number.

If the above conditions are not met, we will withhold 30% of the income from the distribution. Additionally, under the Foreign Account Tax Compliance Act, effective July 1, 2014, U.S. withholding may be required for certain entity owners (including foreign financial institutions and non-financial foreign entities (such as corporations, partnerships and trusts)) at a rate of 30% without regard to lower treaty rates.

Sales to Third Parties

If you sell your policy to a viatical settlement provider, and the Insured is considered terminally or chronically ill within the meaning of IRC Section 101(g), the proceeds of the sale will be treated as death benefit proceeds, and will generally be received by you income tax-free.

However, the sale of your policy to an unrelated investor in a sale that does not qualify as a viatical settlement may have adverse tax consequences. IRS guidance issued in 2009 provides that the gain from such a sale is taxed as ordinary income to the extent that you would have realized ordinary income if you had instead surrendered your policy. Any amount you receive in excess of that amount is taxed as capital gain income. Under the Tax Cuts and Jobs Act of 2017, these sales may qualify as reportable sales and require the purchaser and the contract issuer to report the sale to the seller and the IRS. Previously the IRS had taken the position that your cost basis in the policy for computing the gain on the sale must be decreased by the cumulative cost of insurance charge incurred prior to the sale. The Tax Cuts and Jobs Act of 2017 provides that for reportable sales that take place after August 25, 2009, no reduction in the cost basis for the cost of insurance incurred is required.

Medicare Hospital Insurance Tax

A Medicare Hospital Insurance Tax (known as the “Unearned Income Medicare Contribution”) applies to all or part of a taxpayer’s “net investment income,” at a rate of 3.8%, when certain income thresholds are met. “Net investment income” is defined to include, among other things, non-qualified annuities and net gain attributable to the disposition of property.

Under final regulations, this definition includes the taxable portion of any annuitized payment from a life insurance contract and it may also include the gain from the sale of a life insurance contract. Under current guidance we are required to report to the IRS whether a distribution is potentially subject to the tax. You should consult a tax adviser as to the potential impact of the Medicare Hospital Insurance Tax on your policy.

Other Information

Other Policy Rights and Limitations

Right to Assign the Policy

Generally, you may assign the policy as collateral for a loan or other obligation. In certain states, you cannot assign the policy without our approval. We will refuse or accept any request to assign the policy on a non-discriminatory basis. Please refer to your policy. For any assignment we allow to be binding on us, we must receive, in Good Order, written notice of the assignment and a signed copy of it at our Administrative Office. We are not responsible for the validity of any assignment. If you assign your policy, certain of your rights may only be exercised with the consent of the assignee of record.

Possible Restrictions on Financial Transactions

Federal laws designed to counter terrorism and prevent money laundering might, in certain circumstances, require us to reject a premium payment or block an Owner’s ability to make certain transactions and thereby refuse to accept any request for transfers, withdrawals, surrenders, loans, or death benefits, until the instructions are received from the appropriate regulator. We may also be required to provide additional information about you and your policy to government regulators.

Delay of Payment of Proceeds from the GPA

We may delay payment of any Net Surrender Values, withdrawals, and loan proceeds that are based on the GPA for up to six months from the date the request is received at our Administrative Office.

If we delay payment of a surrender or withdrawal for 30 days or more, we add interest to the date of payment at the same rate used for interest on death proceeds.

Delay of Payment of Proceeds from the Separate Account

We may suspend or postpone transfers from the Separate Account divisions, or delay payment of the Net Surrender Values, withdrawals, loan proceeds and death benefits from the Separate Account during any period when:

- it is not reasonably practicable to determine the amount because the NYSE is closed (other than customary weekend and holiday closings);
- trading is restricted by the SEC;
- an emergency exists as a result of which disposal of shares of the Funds is not reasonably practicable or we cannot reasonably value the shares of the Funds; or
- the SEC, by order, permits us to delay payment in order to protect our Owners.

If, pursuant to SEC rules, a money market Fund suspends payment of redemption proceeds in connection with a liquidation of the Fund, we will delay payment of any transfer, partial withdrawal, surrender, loan, or death benefit from a money market division until the Fund is liquidated.

Distribution

The policies are sold by both registered representatives of MML Investors Services, LLC (MMLIS), a subsidiary of MassMutual, and by registered representatives of other broker-dealers who have entered into distribution agreements with MML Strategic Distributors, LLC (MSD), a subsidiary of MassMutual. Pursuant to separate underwriting agreements with the Company, on its own behalf and on behalf of the Separate Account, MMLIS serves as principal underwriter of the policies sold by its registered representatives, and MSD serves as principal underwriter of the policies sold by registered representatives of other broker-dealers who have entered into distribution agreements with MSD.

Both MMLIS and MSD are registered with the SEC as broker-dealers under the Securities Exchange Act of 1934 and are members of the Financial Industry Regulatory Authority (FINRA). MMLIS and MSD receive compensation for their actions as principal underwriters of the policies.

Commissions and Allowances Paid to MMLIS and Broker-Dealers

Commissions are paid to MMLIS and all broker-dealers involved in the sale of the policy. Commissions for sales of the policies by MMLIS registered representatives are paid by MassMutual on behalf of MMLIS to its registered representatives. Commissions for sales of the policies by registered representatives of other broker-dealers are paid by MassMutual on behalf of MSD to those broker-dealers.

Commissions are a percentage of the premium paid in each year of coverage and differ for premiums paid up to the Target Premium and for premiums paid in excess of the Target Premium. The Target Premium is based on the issue age, gender and risk classification of the Insured.

The maximum commission percentages we pay to MMLIS registered representatives and broker-dealers are:

<i>First Year Commission</i>	<i>Commission in Years 2– 10</i>	<i>Commission in Years 11+</i>
50% of premium paid up to the Target Premium and 3% of premium paid in excess of the Target Premium	4% of premium paid up to the Target Premium and 3% of premium paid in excess of the Target Premium	1% of premium paid up to the Target Premium and 1% of premium paid in excess of the Target Premium

We also pay expense allowances in connection with the sales of the policies.

Additional Compensation Paid to MMLIS

Most MMLIS registered representatives are also MassMutual insurance agents, and as such, are eligible for certain cash and non-cash benefits from MassMutual. Cash compensation includes bonuses and allowances based on factors such as sales, productivity and persistency (policy retention). Non-cash compensation includes various recognition items such as prizes and awards as well as attendance at, and payment of the costs associated with attendance at, conferences, seminars and recognition trips, and also includes contributions to certain individual plans such as pension and medical plans. Sales of this policy may help these registered representatives and their supervisors qualify for such benefits. MMLIS registered representatives who are also General Agents or sales managers of MassMutual also may receive overrides, allowances and other compensation that is based on sales of the policy by their registered representatives.

Additional Payments to Certain Broker-Dealers

In addition to the commissions described above, we may make cash payments to certain broker-dealers to attend sales conferences and educational seminars, thereby promoting awareness of our products. The broker-dealers may use these payments for any reason, including helping offset the costs of the conference or educational seminar.

We may also make cash payments to broker-dealers pursuant to marketing service agreements. These marketing service arrangements vary depending on a number of factors, including the specific level of support being provided. These payments are not made in connection with the sale of specific policies.

These additional payments are not offered to all broker-dealers and the terms of these arrangements may differ. Any such payments will be paid by MassMutual out of our assets and will not result in any additional direct charge to you. Such payments may give us greater access to the registered representatives of the broker-dealers that receive such payments and may influence the way that a broker-dealer markets the policy.

Compensation in General

The compensation arrangements described in the paragraphs above may provide a registered representative with an incentive to sell this policy over other available policies whose issuers do not provide such compensation or which provide lower levels of compensation. You may want to take these compensation arrangements into account when evaluating any recommendations regarding this policy.

We intend to recoup a portion of the cash and non-cash compensation payments that we make through the assessment of certain charges described in this prospectus, including the contingent deferred sales charge. We may also use some of the 12b-1 distribution fee payments (if applicable) and other payments that we receive from certain Funds to help us make these cash and non-cash payments.

Your registered representative typically receives a portion of the compensation that is payable to his or her broker-dealer, depending on the agreement between the representative and their firm. MassMutual is not involved in determining compensation paid to a registered representative of an unaffiliated broker-dealer. You may contact, as applicable, MMLIS, your broker-dealer or registered representative to find out more information about the compensation they may receive in connection with your purchase of a policy.

Commissions or overrides may also be paid to broker-dealers providing wholesaling services (such as providing sales support and training for sales representatives who sell the policies).

Computer System, Cybersecurity and Service Disruption Risks

The Company and its business partners rely on computer systems to conduct business, including customer service, marketing and sales activities, customer relationship management and producing financial statements. While the Company and its business partners have policies, procedures, automation and backup plans designed to prevent or limit the effect of failures, our respective computer systems may be vulnerable to disruptions or breaches as the result of natural disasters, man-made disasters, criminal activity, pandemics, or other events beyond our control. The failure of our or our business partners' computer systems for any reason could disrupt operations, result in the loss of customer business and adversely impact profitability.

The Company and its business partners retain confidential information on our respective computer systems, including customer information and proprietary business information. Any compromise of the security of our or our business partners' computer systems that results in the disclosure of personally identifiable customer information could damage our reputation, expose us to litigation, increase regulatory scrutiny and require us to incur significant technical, legal, and other expenses.

Geopolitical and other events, including natural disasters, war, terrorism, economic uncertainty, trade disputes, public health crises and related geopolitical events, and widespread disease, including pandemics (such as COVID-19) and epidemics, have led, and in the future may lead, to increased market volatility, which may disrupt U.S. and world economies and markets and may have significant adverse direct or indirect effects on the Company. These events may adversely affect computer and other systems on which the Company relies, interfere with the processing of contract-related transactions (including the processing of orders from Owners and orders with the Funds) and the Company's ability to administer this contract in a timely manner, or have other possible negative effects. These events may also impact the issuers of securities in which the Funds invest, which may cause the Funds underlying the contract to lose value. There can be no assurance that we, the Funds or our service providers will avoid losses affecting the contract due to these geopolitical and other events.

If we are unable to receive U.S. mail or fax transmissions due to a closure of U.S. mail delivery by the government or due to the need to protect the health of our employees, you may still be able to submit transaction requests to the Company electronically or over the telephone. Our inability to receive U.S. mail or fax transmissions may cause delays in the pricing and processing of transaction requests submitted to us by U.S. mail or by fax during that time period.

Legal Proceedings

The Company is subject to legal and regulatory actions, including class action lawsuits, in the ordinary course of its business. Our pending legal and regulatory actions include proceedings specific to us, as well as proceedings generally applicable to business practices in the industry in which we operate. From time to time, we also are subject to governmental and administrative proceedings and regulatory inquiries, examinations, and investigations in the ordinary course of our business. In addition, we, along with other industry participants, may occasionally be subject to investigations, examinations, and inquiries (in some cases industry-wide) concerning issues upon which regulators have decided to focus. Some of these proceedings involve requests for substantial and/or unspecified amounts, including compensatory or punitive damages.

While it is not possible to predict with certainty the ultimate outcome of any pending litigation proceedings or regulatory action, management believes, based on information currently known to it, that the ultimate outcome of all pending litigation and regulatory matters, after consideration of applicable reserves and rights to indemnification, is not likely to have a material adverse effect upon the Separate Account, the ability of the principal underwriter(s) to perform in accordance with its contracts with the Company on behalf of the Separate Account, or the ability of the Company to meet its obligations under the policy.

For more information regarding the Company's litigation and other legal proceedings, please see the notes to the Company's financial statements contained within the SAI.

Unclaimed Property

Every state has some form of unclaimed property law that imposes varying legal and practical obligations on insurers and, indirectly, on policy owners, Insureds, beneficiaries, and any other payees of proceeds from a policy. Unclaimed property laws generally provide for the transfer of benefits or payments under various circumstances to the abandoned property division or unclaimed property office in the state of last residence. This process is known as escheatment. To help avoid escheatment, keep your own information, as well as beneficiary and any other payee information up-to-date, including: full names, postal and electronic media addresses, telephone numbers, dates of birth, and social security numbers. To update this information, contact our Administrative Office.

Financial Statements

We encourage both existing and prospective Owners to read and understand our financial statements and those of the Separate Account. Our audited statutory financial statements and the Separate Account's audited U.S. GAAP financial statements are included in the SAI. You can request an SAI by contacting our Administrative Office at the number or address on page 1 of this prospectus.

Appendix A

Funds Available Under the Policy

The following is a list of Funds currently available under the policy. This list of Funds is subject to change, as discussed in the prospectus for the policy. Before you invest, you should review the prospectuses for the Funds. These prospectuses contain more information about the Funds and their risks and may be amended from time to time. You can find the prospectuses and other information about the Funds online at www.MassMutual.com/Apex. You can also request this information at no cost by calling (800) 272-2216 or sending an email request to MassMutualServiceCenter@MassMutual.com.

The current expenses and performance information below reflects fees and expenses of the Funds, but does not reflect the other fees and expenses that your policy may charge. Expenses would be higher and performance would be lower if these charges were included. Each Fund's past performance is not necessarily an indication of future performance.

Fund Type	Fund and Adviser/SubAdviser	Current Expenses (expenses/average assets)	Average Annual Total Returns (as of 12/31/2020)		
			1 Year	5 Year	10 Year
Asset Allocation	MML Aggressive Allocation Fund (Initial Class) ⁽¹⁾ <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> N/A	0.98%	13.35%	10.72%	9.71%
Asset Allocation	MML American Funds Core Allocation Fund (Service Class) ⁽¹⁾ <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> N/A	1.01% ⁽²⁾	11.39%	9.41%	8.25%
Asset Allocation	MML Balanced Allocation Fund (Initial Class) ⁽¹⁾ <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> N/A	0.82%	10.93%	7.92%	7.24%
Asset Allocation	MML Conservative Allocation Fund (Initial Class) ⁽¹⁾ <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> N/A	0.79%	9.93%	7.22%	6.56%
Asset Allocation	MML Growth Allocation Fund (Initial Class) ⁽¹⁾ <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> N/A	0.89%	12.76%	9.70%	8.84%
Asset Allocation	MML Moderate Allocation Fund (Initial Class) ⁽¹⁾ <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> N/A	0.85%	10.54%	8.46%	7.79%
Money Market	MML U.S. Government Money Market Fund (Initial Class) ⁽³⁾ <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> Barings LLC	0.52%	0.23%	0.75%	0.37%
Fixed Income	Fidelity [®] VIP Bond Index Portfolio (Initial Class) <i>Adviser:</i> Fidelity Management & Research Company <i>Sub-Adviser:</i> FMR Investment Management (UK) Limited (FMR UK), Fidelity Management & Research (Hong Kong) Limited (FMR H.K.), and Fidelity Management & Research (Japan) Limited (FMR Japan)	0.14%	7.53%	—	—
Fixed Income	Invesco V.I. Global Strategic Income Fund (Series I) [*] <i>Adviser:</i> Invesco Advisers, Inc. <i>Sub-Adviser:</i> N/A	0.91% ⁽⁴⁾	3.40%	4.40%	3.61%

Fund Type	Fund and Adviser/SubAdviser	Current Expenses (expenses/average assets)	Average Annual Total Returns (as of 12/31/2020)		
			1 Year	5 Year	10 Year
Fixed Income	MML Dynamic Bond Fund (Class II) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> DoubleLine Capital LP	0.62%	3.91%	4.35%	—
Fixed Income	MML High Yield Fund (Class II) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> Barings LLC	0.82% ⁽⁵⁾	5.56%	7.61%	7.06%
Fixed Income	MML Inflation-Protected and Income Fund (Initial Class) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> Barings LLC	0.60% ⁽⁶⁾	11.11%	5.22%	3.83%
Fixed Income	MML Managed Bond Fund (Initial Class) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> Barings LLC	0.43%	7.71%	4.84%	4.10%
Fixed Income	MML Short-Duration Bond Fund (Class II) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> Barings LLC	0.56%	1.55%	2.57%	2.27%
Fixed Income	MML Total Return Bond Fund (Class II) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> Metropolitan West Asset Management, LLC	0.62%	8.79%	4.56%	3.72%
Fixed Income	Vanguard VIF Global Bond Index <i>Adviser:</i> The Vanguard Group, Inc. <i>Sub-Adviser:</i> N/A	0.13%	6.67%	—	—
Balanced	MML Blend Fund (Initial Class) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> BlackRock Investment Management, LLC	0.47%	12.87%	10.57%	10.06%
Large Cap Value	MML Equity Fund (Initial Class) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> T. Rowe Price Associates, Inc. and Brandywine Global Investment Management, LLC	0.45%	3.03%	8.77%	9.34%
Large Cap Value	MML Equity Income Fund (Initial Class) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> T. Rowe Price Associates, Inc.	0.79%	1.34%	9.91%	9.28%
Large Cap Value	MML Fundamental Value Fund (Class II) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> Boston Partners Global Investors, Inc.	0.78% ⁽⁷⁾	2.67%	8.06%	9.07%
Large Cap Value	MML Income & Growth Fund (Initial Class) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> Barrow, Hanley, Mewhinney & Strauss, LLC	0.70%	3.03%	9.13%	9.54%
Large Cap Blend	Fidelity [®] VIP Contrafund [®] Portfolio (Initial Class) <i>Adviser:</i> Fidelity Management & Research Company <i>Sub-Adviser:</i> FMR Investment Management (UK) Limited (FMR UK), Fidelity Management & Research (Hong Kong) Limited (FMR H.K.), and Fidelity Management & Research (Japan) Limited (FMR Japan)	0.61%	30.57%	16.19%	13.52%

Fund Type	Fund and Adviser/SubAdviser	Current Expenses (expenses/average assets)	Average Annual Total Returns (as of 12/31/2020)		
			1 Year	5 Year	10 Year
Large Cap Blend	Fidelity® VIP Total Market Index Portfolio (Initial Class) <i>Adviser:</i> Fidelity Management & Research Company <i>Sub-Adviser:</i> Geode Capital Management, LLC	0.12%	20.30%	—	—
Large Cap Blend	Invesco V.I. Main Street Fund® (Series I)* <i>Adviser:</i> Invesco Advisers, Inc. <i>Sub-Adviser:</i> N/A	0.80% ⁽⁸⁾	13.94%	12.59%	12.29%
Large Cap Blend	MML Equity Index Fund (Class III) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> Northern Trust Investments, Inc.	0.13%	18.41%	15.07%	13.75%
Large Cap Blend	MML Focused Equity Fund (Class II) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> Wellington Management Company LLP	0.87%	12.76%	16.40%	—
Large Cap Blend	MML Fundamental Equity Fund (Class II) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> Invesco Advisers, Inc.	0.82%	20.02%	16.47%	—
Large Cap Blend	MML Growth & Income Fund (Initial Class) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> Massachusetts Financial Services Company	0.57%	14.51%	14.05%	12.86%
Large Cap Growth	MML American Funds Growth Fund (Service Class I) ⁽⁹⁾ <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> N/A	1.03%	51.41%	22.23%	16.34%
Large Cap Growth	MML Blue Chip Growth Fund (Initial Class) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> T. Rowe Price Associates, Inc.	0.78%	34.40%	19.57%	17.51%
Large Cap Growth	MML Large Cap Growth Fund (Initial Class) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> Loomis, Sayles & Company, L.P.	0.72%	31.78%	17.72%	14.51%
Small/Mid-Cap Value	MML Mid Cap Value Fund (Initial Class) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> American Century Investment Management, Inc.	0.89%	1.71%	9.48%	10.59%
Small/Mid-Cap Value	MML Small Company Value Fund (Class II) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> T. Rowe Price Associates, Inc.	1.06%	9.16%	12.04%	9.66%
Small/Mid-Cap Value	MML Small/Mid Cap Value Fund (Initial Class) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> AllianceBernstein L.P.	0.81%	4.65%	8.73%	9.11%
Small/Mid-Cap Blend	BlackRock Small Cap Index V.I. Fund (Class I) <i>Adviser:</i> BlackRock Advisors, LLC <i>Sub-Adviser:</i> N/A	0.22% ⁽¹⁰⁾	19.83%	13.07%	10.87%

Fund Type	Fund and Adviser/Sub-Adviser	Current Expenses (expenses/average assets)	Average Annual Total Returns (as of 12/31/2020)		
			1 Year	5 Year	10 Year
Small/Mid-Cap Blend	Fidelity® VIP Extended Market Index Portfolio (Initial Class) <i>Adviser:</i> Fidelity Management & Research Company LLC <i>Sub-Adviser:</i> Geode Capital Management, LLC	0.13%	16.46%	—	—
Small/Mid-Cap Blend	MML Small Cap Equity Fund (Initial Class) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> Invesco Advisers, Inc.	0.73%	20.70%	13.14%	12.35%
Small/Mid-Cap Blend	Vanguard VIF Mid-Cap Index <i>Adviser:</i> The Vanguard Group, Inc. <i>Sub-Adviser:</i> N/A	0.17%	18.07%	13.14%	12.26%
Small/Mid-Cap Growth	Invesco V.I. Discovery Mid Cap Growth Fund (Series I)* <i>Adviser:</i> Invesco Advisers, Inc. <i>Sub-Adviser:</i> N/A	0.80% ⁽¹¹⁾	40.69%	19.40%	15.92%
Small/Mid-Cap Growth	MML Mid Cap Growth Fund (Initial Class) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> T. Rowe Price Associates, Inc. and Wellington Management Company LLP	0.81%	25.57%	16.43%	14.80%
Small/Mid-Cap Growth	MML Small Cap Growth Equity Fund (Initial Class) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> Wellington Management Company LLP	1.08% ⁽¹²⁾	35.62%	19.13%	14.43%
International/Global	Fidelity® VIP International Index Portfolio (Initial Class) <i>Adviser:</i> Fidelity Management & Research Company <i>Sub-Adviser:</i> Geode Capital Management, LLC	0.17%	10.69%	—	—
International/Global	Invesco Oppenheimer V.I. International Growth Fund (Series I) <i>Adviser:</i> Invesco Advisers, Inc. <i>Sub-Adviser:</i> N/A	1.00% ⁽¹³⁾	21.50%	9.25%	7.87%
International/Global	Invesco V.I. Global Fund (Series I)* <i>Adviser:</i> Invesco Advisers, Inc. <i>Sub-Adviser:</i> N/A	0.77% ⁽¹⁴⁾	27.64%	14.84%	11.64%
International/Global	MML American Funds International Fund (Service Class I) ⁽⁹⁾ <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> N/A	1.28%	13.44%	10.22%	6.20%
International/Global	MML Foreign Fund (Initial Class) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> Thompson, Siegel and Walmsley LLC	0.88% ⁽¹⁵⁾	5.93%	4.48%	3.70%
International/Global	MML Global Fund (Class II) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> Massachusetts Financial Services Company	0.80%	13.96%	12.46%	10.88%
International/Global	MML International Equity Fund (Class II) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> Harris Associates L.P.	1.00% ⁽¹⁶⁾	5.37%	7.15%	—

Fund Type	Fund and Adviser/Sub-Adviser	Current Expenses (expenses/average assets)	Average Annual Total Returns (as of 12/31/2020)		
			1 Year	5 Year	10 Year
International/Global	MML Strategic Emerging Markets Fund (Class II) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> Invesco Advisers, Inc.	1.35% ⁽¹⁷⁾	17.55%	13.03%	2.38%
Specialty ⁽¹⁸⁾	Ivy VIP Asset Strategy (Class I) <i>Adviser:</i> Ivy Investment Management Company <i>Sub-Adviser:</i> N/A	0.77%	14.16%	8.81%	6.24%
Specialty ⁽¹⁸⁾	MML Managed Volatility Fund (Initial Class) <i>Adviser:</i> MML Investment Advisers, LLC <i>Sub-Adviser:</i> Gateway Investment Advisers, LLC	1.06%	6.68%	5.16%	5.89%
Specialty ⁽¹⁸⁾	Vanguard VIF Real Estate Index <i>Adviser:</i> The Vanguard Group, Inc. <i>Sub-Adviser:</i> N/A	0.26%	-4.85%	5.66%	8.60%

- (1) These are fund-of-funds investment choices. They are known as fund-of-funds because they invest in other underlying funds. A fund offered in a fund-of-funds structure may have higher expenses than a direct investment in its underlying funds because a fund-of-funds bears its own expenses and indirectly bears its proportionate share of expenses of the underlying funds in which it invests.
- (2) The expenses in the above table reflect a written agreement by MML Advisers to cap the fees and expenses of the Fund (other than extraordinary legal and other expenses, interest expense, expenses related to borrowings, securities lending, leverage, taxes, and brokerage, short sale dividend and loan expense, or other non-recurring or unusual expenses such as organizational expenses and shareholder meeting expenses, as applicable) through April 30, 2022, to the extent that Net Annual Fund Operating Expenses would otherwise exceed 1.01% for Service Class I. The Net Annual Fund Operating Expenses table may exceed these amounts, because, as noted in the previous sentence, certain fees and expenses are excluded from the cap. The agreement can only be terminated by mutual consent of the Board of Trustees on behalf of the Fund and MML Advisers.
- (3) You could lose money by investing in the fund. Although the fund seeks to preserve the value of your investment at \$1.00 per share, it cannot guarantee it will do so. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time. The yield of this fund may become very low during periods of low interest rates. After deduction of Separate Account charges, the yield in the division that invests in this fund could be negative.
- (4) Invesco Advisers, Inc. ("Invesco" or the "Adviser") has contractually agreed to waive a portion of the Fund's management fee in an amount equal to the net management fee that Invesco earns on the Fund's investments in certain affiliated funds, which will have the effect of reducing the Acquired Fund Fees and Expenses. Unless Invesco continues the fee waiver agreements, it will terminate on June 30, 2022. During its term, the fee waiver agreement cannot be terminated or amended to reduce the advisory fee waiver without approval of the Board of Trustees.
- (5) The expenses reflect a written agreement by MML Advisers to waive .05% of its management fees through April 30, 2022. This agreement can only be terminated by mutual consent of the Board of Trustees on behalf of the Fund and MML Advisers.
- (6) The expenses reflect a written agreement by MML Advisers to cap the fees and expenses of the Fund (other than extraordinary legal and other expenses, Acquired Fund Fees and Expenses, expenses related to borrowings, securities lending, leverage, taxes, and brokerage, short sale dividend and loan expense, or other non-recurring or unusual expenses such as organizational expenses and shareholder meeting expenses, as applicable) through April 30, 2022, to the extent that Net Annual Fund Operating Expenses would otherwise exceed .60% and .85% for Initial Class and Service Class shares, respectively. The Net Annual Fund Operating Expenses may exceed these amounts, because, as noted in the previous sentence, certain fees and expenses are excluded from the cap. The agreement can only be terminated by mutual consent of the Board of Trustees on behalf of the Fund and MML Advisers.
- (7) The expenses reflect a written agreement by MML Advisers to waive .02% of its management fees through April 30, 2022. This agreement can only be terminated by mutual consent of the Board of Trustees on behalf of the Fund and MML Advisers.
- (8) Invesco Advisers, Inc. ("Invesco" or the "Adviser") has contractually agreed to waive advisory fees and/or reimburse expenses to the extent necessary to limit Total Annual Fund Operating Expenses After Fee Waiver and/or Expense Reimbursement (excluding certain items discussed below) of Series I shares to 0.80% of the Fund's average daily net assets (the "expense limit"). In determining the Adviser's obligation to waive advisory fees and/or reimburse expenses, the following expenses are not taken into account, and could cause the Total Annual Fund Operating Expenses After Fee Waiver and/or Expense Reimbursement to exceed the numbers reflected above: (i) interest; (ii) taxes; (iii) dividend expense on short sales; (iv) extraordinary or non-routine items, including litigation expenses; (v) expenses that the Fund has incurred but did not actually pay because of an expense offset arrangement. Unless Invesco continues the fee waiver agreement, it will terminate on April 30, 2022. During its terms, the fee waiver agreement cannot be terminated or amended to increase the expense limit without approval of the Board of Trustees.
- (9) The fund is a "feeder" fund, meaning that it does not buy investment securities directly, but instead invests in shares of a corresponding "master" fund, which in turn purchases investment securities. A fund offered in a master-feeder structure may have higher expenses than those of a fund which invests directly in securities because the "feeder" fund bears its own expenses in addition to those of the "master" fund. You should read the fund prospectuses for more information about this "feeder" fund.
- (10) As described in the "Management of the Funds" section of the Fund's prospectus, BlackRock has contractually agreed to waive and/or reimburse fees or expenses in order to limit Total Annual Fund Operating Expenses After Fee Waivers and/or Expense Reimbursements (excluding Dividend Expense, Interest Expense, Acquired Fund Fees and Expenses and certain other Fund expenses) to 0.22% of average daily net assets through April 30, 2022. BlackRock has also contractually agreed to reimburse fees in order to limit certain operational and recordkeeping fees to 0.05% of average daily net assets through April 30, 2022. BlackRock has contractually agreed to waive the management fee with respect to any portion of each Fund's assets (except for with respect to BlackRock 60/40 Target Allocation ETF V.I. Fund and Government Money Market V.I. Fund) estimated to be attributable to investments in other equity and fixed-income mutual funds and ETFs managed by BlackRock or its affiliates that have a contractual management fee, through April 30, 2022. Each of these contractual agreements may be terminated upon 90 days' notice by a majority of the non-interested directors of the Fund or by a vote of a majority of the outstanding voting securities of the Fund.
- (11) Invesco Advisers, Inc. ("Invesco" or the "Adviser") has contractually agreed to waive advisory fees and/or reimburse expenses to the extent necessary to limit Total Annual Fund Operating Expenses After Fee Waiver and/or Expense Reimbursement (excluding certain items discussed

below) of Series I shares to 0.80% of the Fund's average daily net assets (the "expense limit"). In determining the Adviser's obligation to waive advisory fees and/or reimburse expenses, the following expenses are not taken into account, and could cause the Total Annual Fund Operating Expenses After Fee Waiver and/or Expense Reimbursement to exceed the numbers reflected above: (i) interest; (ii) taxes; (iii) dividend expense on short sales; (iv) extraordinary or non-routine items, including litigation expenses; (v) expenses that the Fund has incurred but did not actually pay because of an expense offset arrangement. Unless Invesco continues the fee waiver agreement, it will terminate on April 30, 2022. During its terms, the fee waiver agreement cannot be terminated or amended to increase the expense limit without approval of the Board of Trustees.

- (12) The expenses reflect a written agreement by MML Advisers to waive .03% of its management fees through April 30, 2022. This agreement can only be terminated by mutual consent of the Board of Trustees on behalf of the Fund and MML Advisers.
- (13) Invesco Advisers, Inc. ("Invesco" or the "Adviser") has contractually agreed to waive advisory fees and/or reimburse expenses of Series I shares to the extent necessary to limit Total Annual Fund Operating Expenses After Fee Waiver and/or Expense Reimbursement (excluding certain items discussed below) of Series I shares to 1.00% of the Fund's average daily net assets (the "expense limit"). In determining the Adviser's obligation to waive advisory fees and/or reimburse expenses, the following expenses are not taken into account, and could cause the Total Annual Fund Operating Expenses After Fee Waiver and/or Expense Reimbursement to exceed the numbers reflected above: (i) interest; (ii) taxes; (iii) dividend expense on short sales; (iv) extraordinary or non-routine items, including litigation expenses; (v) expenses that the Fund has incurred but did not actually pay because of an expense offset arrangement. Unless Invesco continues the fee waiver agreement, it will terminate on April 30, 2022. During its term, the fee waiver agreement cannot be terminated or amended to increase the expense limit without approval of the Board of Trustees.
- (14) Invesco Advisers, Inc. ("Invesco" or the "Adviser") has contractually agreed to waive advisory fees and/or reimburse expenses to the extent necessary to limit Total Annual Fund Operating Expenses After Fee Waiver and/or Expense Reimbursement (excluding certain items discussed below) of Series I shares to 0.77% of the Fund's average daily net assets (the "expense limit"). In determining the Adviser's obligation to waive advisory fees and/or reimburse expenses, the following expenses are not taken into account, and could cause the Total Annual Fund Operating Expenses After Fee Waiver and/or Expense Reimbursement to exceed the numbers reflected above: (i) interest; (ii) taxes; (iii) dividend expense on short sales; (iv) extraordinary or non-routine items, including litigation expenses; (v) expenses that the Fund has incurred but did not actually pay because of an expense offset arrangement. Unless Invesco continues the fee waiver agreement, it will terminate on April 30, 2022. During its term, the fee waiver agreements cannot be terminated or amended to increase the expense limit without approval of the Board of Trustees.
- (15) The expenses reflect a written agreement by MML Advisers to waive .02% of its management fees through April 30, 2022. This agreement can only be terminated by mutual consent of the Board of Trustees on behalf of the Fund and MML Advisers.
- (16) The expenses reflect a written agreement by MML Advisers to cap the fees and expenses of the Fund (other than extraordinary legal and other expenses, Acquired Fund Fees and Expenses, interest expense, expenses related to borrowings, securities lending, leverage, taxes, and brokerage, short sale dividend and loan expense, or other non-recurring or unusual expenses such as organizational expenses and shareholder meeting expenses, as applicable) through April 30, 2022, to the extent that Net Annual Fund Operating Expenses would otherwise exceed 1.00% and 1.25% for Class II and Service Class I shares, respectively. The Net Annual Fund Operating Expenses may exceed these amounts, because, as noted in the previous sentence certain fees and expenses are excluded from the cap. The agreement can only be terminated by mutual consent of the Board of Trustees on behalf of the Fund and MML Advisers.
- (17) MML Advisers has agreed to cap the fees and expenses of the Fund (other than extraordinary legal and other expenses, Acquired Fund Fees and Expenses, interest expense, expenses related to borrowings, securities lending, leverage, taxes, and brokerage, short sale dividend and loan expense, or other non-recurring or unusual expenses such as organizational expenses and shareholder meeting expenses, as applicable) through April 30, 2022, to the extent that Net Annual Fund Operating Expenses after Expense Reimbursement would otherwise exceed 1.35% and 1.60% for Class II and Service Class I shares, respectively. The agreement can only be terminated by mutual consent of the Board of Trustees on behalf of the Fund and MML Advisers.
- (18) Specialty funds are an all-encompassing equity category that consists of funds that forgo broad diversification to concentrate on a certain segment of the economy or a specific targeted strategy. For example, sector funds are targeted strategy funds aimed at specific sectors of the economy, such as financial, technology, healthcare, and so on. Sector funds can, therefore, be more volatile than a more diversified equity fund since the stocks in a given sector tend to be highly correlated with each other.

* *Effective on or about April 30, 2021:*

Invesco V.I. Global Strategic Income Fund formerly known as Invesco Oppenheimer V.I. Global Strategic Income Fund.

Invesco V.I. Main Street Fund[®] formerly known as Invesco Oppenheimer V.I. Main Street Fund[®].

Invesco V.I. Discovery Mid Cap Growth Fund formerly known as Invesco Oppenheimer V.I. Discovery Mid Cap Growth Fund.

Invesco V.I. Global Fund formerly known as Invesco Oppenheimer V.I. Global Fund.

Appendix B

Hypothetical Examples of How the Guaranteed Death Benefit (GDB) Safety Test Works

Following are hypothetical examples of how the GDB Safety Test works. These examples are provided for illustrative purposes only and are in no way representative of actual policy values.

Example I ~ Meeting the GDB Safety Test when there are no surrender charges and no Policy Debt

Assume the following:

- It is the policy's 11th policy anniversary;
- You have no Policy Debt;
- The monthly charges are \$100;
- Your policy's Account Value is \$50;
- The GDB Measure equals 75; and
- The GDB Monthly Factors total 70.

In this case, the Account Value (\$50) is insufficient to cover the monthly charges due of \$100. We will reduce the monthly charges to an amount equal to the Account Value (\$50) and deduct \$50 from the Account Value. The Account Value will now be equal to zero. (Note that the Account Value can never be less than zero.) The policy will stay In Force because the GDB Measure exceeds the total GDB Monthly Factors on that Monthly Charge Date.

Please see the "Guaranteed Death Benefit (GDB) Safety Test", "Guaranteed Death Benefit (GDB) Measure", and "Guaranteed Death Benefit (GDB) Monthly Factors" sub-sections in the "Policy Termination and Reinstatement" section for additional information.

Example II ~ Meeting the GDB Safety Test when there are surrender charges and no Policy Debt

Assume the following:

- It is the policy's sixth Monthly Charge Date;
- You have no Policy Debt;
- The monthly charges are \$100;
- Your policy's Account Value is \$150;
- The surrender charges are \$80;
- The Net Surrender Value is \$70 (Account Value (\$150) - surrender charges (\$80) = \$70);
- The GDB Measure equals 75; and
- The GDB Monthly Factors total 70.

Although the Account Value (\$150) is sufficient to cover the monthly charges due of \$100, the Net Surrender Value (\$70) is not sufficient to cover the monthly charges due. As a result, this policy is at risk of terminating if the GDB Safety Test is not met. In this case, we deduct the \$100 monthly charges from the Account Value, which results in a remaining Account Value of \$50, and the Net Surrender Value is now \$0. The policy will stay In Force because the GDB Measure exceeds the total GDB Monthly Factors on that Monthly Charge Date.

Please see the "Guaranteed Death Benefit (GDB) Safety Test", "Guaranteed Death Benefit (GDB) Measure", and "Guaranteed Death Benefit (GDB) Monthly Factors" sub-sections in the "Policy Termination and Reinstatement" section for additional information.

Example III ~ Meeting the GDB Safety Test when there is Policy Debt that has exceeded the Policy Debt Limit

Assume the following:

- It is the policy's 11th policy anniversary;
- You have an existing policy loan of \$2,500;
- You have accrued loan interest of \$100 that is due and, instead of paying the interest, it is added to your policy loan;
- The surrender charges are \$0;
- The monthly charges are \$100;
- Your policy's Account Value is \$2,550;
- The non-loaned Account Value is \$50;
- The GDB Measure equals 100; and
- The GDB Monthly Factors total 70.

In this case, \$100 of your non-loaned Account Value should be transferred to the loaned portion of the policy's GPA to pay the accrued loan interest, which would increase Policy Debt to \$2,600. The GDB Measure exceeds the total GDB Monthly Factors on that Monthly Charge Date. Therefore, the GDB Safety Test has been met.

However, because there is insufficient value in the non-loaned Account Value to cover the policy loan interest, the Policy Debt Limit is exceeded (Policy Debt of \$2,600 exceeds the Account Value of \$2,550). Therefore, your policy will enter the Grace Period even though the GDB Safety Test is satisfied.

Please see the "Guaranteed Death Benefit (GDB) Safety Test", "Guaranteed Death Benefit (GDB) Measure", and "Guaranteed Death Benefit (GDB) Monthly Factors" sub-sections in the "Policy Termination and Reinstatement" section for additional information.

Appendix C

Hypothetical Examples of the Impact of the Minimum Death Benefit

Example I

Assume the following:

- Death Benefit Option 1
- Face Amount is \$500,000
- Account Value is \$50,000
- No Policy Debt
- Insured's Attained Age is 45
- Death Benefit Factor is 2.15

The death benefit for death benefit option 1 is the greater of the Face Amount or the minimum death benefit. The minimum death benefit is calculated by multiplying the Account Value times the death benefit factor.

The death benefit will be \$500,000 based on the greater of:

- \$500,000 or
- $\$50,000 \times 2.15 = \$107,500$

Example II

Assume the following:

- Death Benefit Option 1
- Face Amount is \$500,000
- Account Value is \$250,000
- No Policy Debt
- Insured's Attained Age is 45
- Death Benefit Factor is 2.15

The death benefit for death benefit option 1 is the greater of the Face Amount or the minimum death benefit. The minimum death benefit is calculated by multiplying the Account Value times the death benefit factor.

The death benefit will be \$537,500 based on the greater of:

- \$500,000 or
- $\$250,000 \times 2.15 = \$537,500$

Hypothetical Examples of the Impact of the Account Value and Premiums

Example I ~ Death Benefit Option 1

Assume the following:

- Face Amount is \$1,000,000
- Account Value is \$50,000
- Minimum death benefit is \$219,000
- No Policy Debt

Based on these assumptions,

- the death benefit is \$1,000,000.

If the Account Value increases to \$80,000 and the minimum death benefit increases to \$350,400,

- the death benefit remains at \$1,000,000.

If the Account Value decreases to \$30,000 and the minimum death benefit decreases to \$131,400,

- the death benefit still remains at \$1,000,000.

Example II ~ Death Benefit Option 2

Assume the following:

- Face Amount is \$1,000,000
- Account Value is \$50,000
- Minimum death benefit is \$219,000
- No Policy Debt

Based on these assumptions,

- the death benefit is \$1,050,000 (Face Amount plus Account Value).

If the Account Value increases to \$80,000 and the minimum death benefit increases to \$350,400,

- the death benefit will increase to \$1,080,000.

If the Account Value decreases to \$30,000 and the minimum death benefit decreases to \$131,400,

- the death benefit will decrease to \$1,030,000.

Example III ~ Death Benefit Option 3*

Assume the following:

- Face Amount is \$1,000,000
- Account Value is \$50,000
- Minimum death benefit is \$219,000
- No Policy Debt
- Premiums paid (and not refunded) under the policy to date total \$40,000
- Premiums paid (and not refunded) prior to the Insured's Attained Age 90

Based on these assumptions,

- the death benefit is \$1,040,000 (Face Amount plus Premiums paid (and not refunded)).

If you pay an additional \$30,000 of premium and the Account Value increases to \$80,000 and the minimum death benefit increases to \$350,400,

- the death benefit will increase to \$1,070,000.

Hypothetical Examples of Death Benefit Option Changes

Example I ~ Change from Option 2 to Option 1

For a change from Option 2 to Option 1, the Face Amount is increased by the amount of the Account Value on the effective date of the change.

For example, if the policy has a Face Amount of \$500,000 and an Account Value of \$25,000, the death benefit under Option 2 is equal to the Face Amount plus the Account Value, or \$525,000. If you change from Option 2 to Option 1, the death benefit under Option 1 is equal to the policy Face Amount. Since the death benefit under the policy does not change as the result of a death benefit option change, the Face Amount will be increased from \$500,000 under Option 2 to \$525,000 under Option 1 and the death benefit after the change will remain at \$525,000.

Example II ~ Change from Option 3 (without interest option) to Option 1*

For a change from Option 3 to Option 1, the Face Amount is increased by the amount of the premiums paid (and not refunded) to the effective date of the change.

For example, if a policy has a Face Amount of \$500,000, and premium payments of \$12,000 have been made to date, the death benefit under Option 3 is equal to the Face Amount plus the premiums paid (and not refunded), or \$512,000. If you change from Option 3 to Option 1, the death benefit under Option 1 is equal to the Face Amount. Since the death benefit under the policy does not change as the result of a death benefit option change, the Face Amount will be increased from \$500,000 under Option 3 to \$512,000 under Option 1 and the death benefit after the change will remain at \$512,000.

Example III ~ Change from Option 1 to Option 2

For a change from Option 1 to Option 2, the Face Amount will be decreased by the amount of the Account Value on the effective date of the change.

For example, if the policy has a Face Amount of \$700,000 and an Account Value of \$25,000, under Option 1 the death benefit is equal to the Face Amount, or \$700,000. If you change from Option 1 to Option 2, the death benefit under Option 2 is equal to the Face Amount plus the Account Value. Since the death benefit does not change as the result of a death benefit option change, the Face Amount will be decreased by \$25,000 to \$675,000, and the death benefit under Option 2 after the change will remain at \$700,000.

Example IV ~ Change from Option 3 to Option 2*

For a change from Option 3 (without interest option) to Option 2, the Face Amount is changed (increased or decreased) by the difference between the Account Value and the premiums paid (and not refunded) to date.

For example, if the policy has a Face Amount of \$1,000,000 and an Account Value of \$70,000 and premiums paid (and not refunded) of \$25,000, the death benefit under Option 3 is equal to the Face Amount plus the premiums paid (and not refunded) to date, or \$1,025,000. If you change from Option 3 to Option 2, the death benefit under Option 2 is equal to the Face Amount plus the Account Value. Since the death benefit under the policy does not change as the result of a death benefit option change, the Face Amount will be increased by the sum of the premiums paid (and not refunded) to date and then decreased by the Account Value to \$955,000 under Option 2, maintaining a death benefit of \$1,025,000.

A similar type of change would be made for a change from Option 3 (with interest option) to Option 2.

For example, if the policy has a Face Amount of \$1,000,000 and an Account Value of \$70,000 and premiums paid (and not refunded) of \$25,000, and interest applied to premiums paid (and not refunded) of \$5,000, the death benefit under Option 3 (with interest) is equal to the Face Amount plus the premiums paid (and not refunded) to date plus interest applied to premiums paid (and not refunded) to date, or \$1,030,000. If you change from Option 3 to Option 2, the death benefit under Option 2 is equal to the Face Amount plus the Account Value. Since the death benefit under the policy does not change as the result of a Death Benefit Option change, the Face Amount will be increased by the sum of the premiums paid (and not refunded) to date plus interest applied to premiums paid (and not refunded) to date and then decreased by the Account Value, to \$960,000 under Option 2, maintaining a death benefit of \$1,030,000.

* All hypothetical examples involving death benefit Option 3 are assumed to occur prior to the Insured's Attained Age 90.

Appendix D

Hypothetical Example – Accelerated Death Benefit for Terminal Illness Rider

Below is an example showing the impact of accelerating the death benefit under this rider.

Policy details prior to the acceleration of the death benefit:

Death Benefit	\$250,000
Face Amount	\$250,000
Account Value	\$50,000
Policy Debt	\$15,000
Net Surrender Value	\$35,000
Net Death Benefit Payable	\$235,000

The insured is terminally ill as defined in the rider and the Owner requests to accelerate \$100,000 of death benefit. Assuming an annual interest rate of 5%, the interest charge is calculated as follows:

$$\text{Interest Charge} = 5\% \times 100,000 / (1 + 5\%) = \$4,761.90$$

The Terminal Illness Benefit Payment is then calculated as follows:

Amount to Be Accelerated	\$100,000.00
Less Interest Charge	-\$4,761.90
Less administrative fee	-\$250.00
Terminal Illness Benefit Payment (before loan repayment)	\$94,988.10

Alternatively, the Owner could request the Terminal Illness Benefit Payment amount rather than the amount to be accelerated.

Net Payment to the Owner:

$$\text{Net Payment} = \text{Terminal Illness Benefit Payment} - \text{Loan Repayment}$$

$$\text{Net Payment} = \text{Terminal Illness Benefit Payment} - (\text{Policy Debt Before Acceleration} - \text{Policy Debt After Acceleration})$$

$$\text{Net Payment} = \$94,988.10 - (\$15,000 - \$9,000) = \$88,988.10$$

Impact on policy values:

	Policy Values Before Acceleration	Policy Values After Acceleration
Death Benefit	\$250,000	\$150,000
Face Amount	\$250,000	\$150,000
Account Value	\$ 50,000	\$ 30,000
Policy Debt	\$ 15,000	\$ 9,000
Planned Annual Premium*	\$ 2,500	\$ 2,500

* The Planned Premium would not change as a result of the acceleration. However, the Owner could elect to change Planned Premiums based on reduced monthly charges resulting from the Account Value and Face Amount after acceleration.

$$\text{Death Benefit After Acceleration} = \text{Death Benefit Before Acceleration} - \text{Amount to Be Accelerated}$$

$$\text{Death Benefit After Acceleration} = \$250,000 - \$100,000 = \$150,000$$

$$\text{Face Amount After Acceleration} = \text{Face Amount Before Acceleration} \times \text{Death Benefit After Acceleration} / \text{Death Benefit Before Acceleration}$$

$$\text{Face Amount After Acceleration} = \$250,000 \times \$150,000 / \$250,000 = \$150,000$$

Account Value After Acceleration = Account Value Before Acceleration x Death Benefit After Acceleration / Death Benefit Before Acceleration

$$\text{Account Value After Acceleration} = \$50,000 \times \$150,000 / \$250,000 = \$30,000$$

Policy Debt After Acceleration = Policy Debt Before Acceleration x Death Benefit After Acceleration / Death Benefit Before Acceleration

$$\text{Policy Debt After Acceleration} = \$15,000 \times \$150,000 / \$250,000 = \$9,000$$

Appendix E

Hypothetical Example – Accelerated Death Benefit for Chronic Illness Rider

Below is an example showing the impact of accelerating the death benefit under this rider.

Policy details prior to the acceleration of the death benefit:

Sex	Male
Attained Age	75
Death Benefit	\$250,000
Face Amount	\$250,000
Account Value	\$50,000
Policy Debt	\$15,000
Net Surrender Value	\$35,000

The Insured is chronically ill as defined in the rider and the Owner requests to accelerate \$30,000. The Chronic Illness Benefit Payment is the actuarial present value of the accelerated death benefit based on mortality and interest rate assumptions described in the policy.

Calculation of the Chronic Illness Benefit Payment:

\bar{A}_x = Actuarial present value of one dollar payable upon the death of the insured

\bar{A}_x = 0.689183 for a Male Attained Age 75

Chronic Illness Benefit Payment = Amount to be Accelerated x \bar{A}_x
Chronic Illness Benefit Payment = \$30,000 x 0.689183 = \$20,675.49

Alternatively, the Owner could request the Chronic Illness Benefit Payment amount rather than the amount to be accelerated.

Net Payment to the Owner:

Net Payment = Chronic Illness Benefit Payment – Loan Repayment
 Net Payment = Chronic Illness Benefit Payment – (Policy Debt Before – Policy Debt After)
 Net Payment = \$20,675.49 – (\$15,000 – \$13,200) = \$18,875.49

Impact on policy values:

	Policy Values Before Acceleration	Policy Values After Acceleration
Death Benefit	\$250,000	\$220,000
Face Amount	\$250,000	\$220,000
Account Value	\$ 50,000	\$ 44,000
Policy Debt	\$ 15,000	\$ 13,200
Planned Annual Premium*	\$ 2,500	\$ 2,500

* The Planned Premium would not change as a result of the acceleration. However, the Owner could elect to change Planned Premiums based on reduced monthly charges resulting from the Account Value and Face Amount after acceleration.

Death Benefit = Death Benefit Before – Amount to Be Accelerated
 Death Benefit = \$250,000 – \$30,000 = \$220,000

Face Amount = Face Amount Before x Death Benefit After / Death Benefit Before
 Face Amount = \$250,000 x \$220,000 / \$250,000 = \$220,000

Account Value = Account Value Before x Death Benefit After / Death Benefit Before
 Account Value = \$50,000 x \$220,000 / \$250,000 = \$44,000

Policy Debt = Policy Debt Before x Death Benefit After / Death Benefit Before
 Policy Debt = \$15,000 x \$220,000 / \$250,000 = \$13,200

Appendix F

Hypothetical Example – Overloan Protection Rider

Below is an example showing the impact of exercising this rider.

Assuming the following:

- The policy is in Policy Year 21, policy month 1.
- The Insured is Attained Age 80.
- The policy is not a MEC.
- The policy is issued under the Guideline Premium Test.
- The policy's Death Benefit Option is Option 2.
- The Account Value immediately preceding the activation of the Overloan Protection Rider is \$125,000.
- The loaned Account Value immediately preceding the activation of the Overloan Protection Rider is \$120,000.
- Activating the Overloan Protection Rider will not cause the policy to become a MEC or fail the Guideline Premium Test.
- All amounts that may be withdrawn from the policy without the imposition of federal income tax have been taken as withdrawals prior to exercise of the rider.

Upon exercising the Overloan Protection Rider:

- The one-time rider charge is deducted: = [Account Value x Overloan Protection Rider charge] = [\$125,000 x 3.2%] = \$4,000.
- The Overloan Rider Trigger is met. The Overloan Rider Trigger point is 95.8% for Attained Age 80. The ratio of the Policy Debt to the Account Value = [loaned Account Value/Account Value] = [\$120,000/\$125,000] = 96.0%. 96.0% \geq 95.8%.
- The Death Benefit Option is changed from Option 2 to Option 1.
- The remaining non-loaned Account Value is the Account Value less the Policy Debt less the one-time rider charge. The non-loaned Account Value = [Account Value – loaned Account Value – Overloan Protection Rider charge] = [\$125,000 – \$120,000 – \$4,000] = \$1,000. This amount is transferred to the GPA and will accrue interest at not less than the policy's guaranteed minimum interest rate for the GPA.
- The policy becomes a paid-up policy and the Selected Face Amount = [Account Value after the rider charge is taken x Minimum Death Benefit factor] = [(\$125,000 – \$4,000) x 105%] = \$127,050.
- Going forward, the net Death Benefit will be equal to the greater of the Face Amount and the Minimum Death Benefit, less Policy Debt. The net Death Benefit immediately following exercise of the rider = [new Face Amount – Policy Debt] = [\$127,050 - \$120,000] = \$7,050.
- The Policy Debt of \$120,000 will continue to accrue interest at the applicable rate and the loaned Account Value of \$120,000 will continue to be credited with interest at the applicable rate.

Appendix G

Hypothetical Example – Substitute of Insured Rider

Below is an example of exercising this rider.

Policy details prior to the substitution:

Issue Date	1/1/2020
Insured Date of Birth	1/1/1965
Issue Age	55
Sex	Male
Risk Class	Tobacco
Face Amount	\$250,000
Account Value on 1/1/2030	\$50,000

On 1/1/2030, the Substitute of Insured Rider is exercised with the following insured:

Substitute Insured Date of Birth	1/1/1980
Issue Age	40
Sex	Female
Risk Class	Non-Tobacco

The Face Amount (\$250,000) is unchanged. A \$75 fee for exercising the rider is deducted from the Account Value. There is no other cost or credit associated with exercising the rider. Going forward, all monthly charges, surrender charges, and other values after the substitution will be based on the life and risk class of the substitute insured as if the substitute insured were the original insured. Below is the impact on the guaranteed monthly charges on the date of substitution:

Breakdown of Guaranteed Monthly Charges on Date of Substitution		
	Original Insured Male Tobacco Issue Age 55 Duration 11	Substitute Insured Female Non-Tobacco Issue Age 40 Duration 11
Charge for Exercising Rider	\$0.00	\$75.00
Insurance Charge	\$ 328.98	\$ 23.00
Face Amount Charge	\$ 182.50	\$ 125.00
Administrative Charge	\$ 15.00	\$ 15.00
Surrender Charge	\$ 0.00	\$ 0.00
Account Value After Charges	\$49,473.52	\$49,762.00

Appendix H

Hypothetical Example – Conversion Under the Right to Convert to a Whole Life Insurance Policy Endorsement

Below is an example of converting the policy under this endorsement.

Policy details prior to the conversion:

Sex	Male
Risk Class	Non-Tobacco
Issue Age	45
Attained Age	50
Risk Class	Non-Tobacco
Face Amount	\$250,000
Planned Annual Premium	\$2,500
Account Value	\$10,000
Surrender Charge	\$4,010
Surrender Value	\$5,990

Upon conversion:

- A new whole life policy is issued with an issue age of 50 and risk class of non-tobacco. Evidence of insurability is not required.
- The surrender charges on the current variable life policy are waived, and the Account Value of \$10,000 is applied as premium to the whole life policy.
- The whole life premium is less than \$10,000, so a combination of base whole life coverage and coverage under an additional life insurance rider is issued so that the total premium is \$10,000 and the total coverage amount equals the face amount of the current variable life policy.
- Ongoing premiums after conversion are based on the base policy premium.

	Premium	Face Amount
Base Policy	\$6,416	\$239,326
Unscheduled Additional Life Insurance	\$ 3,584	\$ 10,674
Total	\$10,000	\$250,000

The SAI contains additional information about the Separate Account and the policy. The SAI is incorporated into this prospectus by reference and it is legally part of this prospectus. We filed the SAI with the SEC. The SEC maintains a website (www.sec.gov) that contains the SAI, material incorporated by reference and other information regarding companies that file electronically with the SEC.

Reports and other information about the Separate Account, including the SAI, are available on the SEC website (www.sec.gov).

For a free copy of the SAI, other information about this policy, or general inquiries, contact our Administrative Office:

MassMutual Customer Service Center
PO Box 1865
Springfield, MA 01102-1865
(800) 272-2216

You can also request, free of charge, a personalized illustration of death benefits, surrender values, and cash values from your registered representative or by calling our Administrative Office.

Investment Company Act file number: 811-08075
Securities Act file number: 333-229670
Class (Contract) Identifier: C000211478