Supplement dated October 14, 2020 to the Prospectuses

each dated May 1, 2020, for:

Flex Extra
MassMutual Transitions Select℠ II
MassMutual Transitions®
Strategic Group Variable Universal Life® II
Issued by Massachusetts Mutual Life Insurance Company

MassMutual Artistry
Issued by Massachusetts Mutual Life Insurance Company in New York and C.M. Life Insurance Company in all other states

Panorama Premier
Issued by Massachusetts Mutual Life Insurance Company in New York and New Jersey and C.M. Life Insurance Company in all other states

Variable Life Plus
Issued by Massachusetts Mutual Life Insurance Company in New York and MML Bay State Life Insurance Company in all other states

each dated May 1, 2020, as supplemented, for:

MassMutual Electrum℠
MassMutual Evolution
MassMutual Transitions Select℠
Variable Universal Life II
Issued by Massachusetts Mutual Life Insurance Company

Variable Universal Life
Issued by Massachusetts Mutual Life Insurance Company in New York and California and C.M. Life Insurance Company in all other states

Variable Life Select
Issued by Massachusetts Mutual Life Insurance Company in New York and Puerto Rico and MML Bay State Life Insurance Company in all other states

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 on or about November 18, 2020, BlackRock Investment Management, LLC will replace Barings LLC as the investment sub-adviser for the MML Blend Fund. All references in the Prospectuses to Barings LLC as the investment sub-adviser to the MML Blend Fund are replaced with BlackRock Investment Management, LLC.

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:

Strategic Group Variable Universal Life® II	**(800) 548-0073** 8 a.m. - 5 p.m. Eastern Time
MassMutual Electrum℠	**(800) 665-2654** 8 a.m. - 5 p.m. Eastern Time
MassMutual Transitions Select℠ II	**(866) 645-2362** 7 a.m. - 7 p.m. Central Time
All other variable products listed above	**(800) 272-2216** 8 a.m. - 8 p.m. Eastern Time

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For more information about the fund, read the fund prospectus. Fund prospectuses are available on our website at www.massmutual.com.

MassMutual Transitions® Variable Annuity
Issued by Massachusetts Mutual Life Insurance Company
Massachusetts Mutual Variable Annuity Separate Account 4

This prospectus describes an individual or group deferred variable annuity contract offered by Massachusetts Mutual Life Insurance Company. There are two versions of the contract: (1) the Transitions Custom Plan and (2) the Transitions Package Plan. The Transitions Custom Plan allows contract owners to custom build their own contract by adding additional contract features to the standard Transitions Custom Plan contract. The Transitions Custom Plan also allows contract owners to change certain contract features at a later date. The Transitions Package Plan consists of three distinct packages of contract features called Transitions Package I, Transitions Package II and Transitions Package III. **Please refer to page 4 of this prospectus for more detail regarding the Transitions Custom Plan and the Transitions Package Plan.** Certain contract features available under the Transitions Custom Plan involve payment of a credit. If you elect any of these contract features, your contract expenses may be higher than the expenses for a contract where these contract features have not been elected. The amount of the credits may be more than offset by the charges for these additional contract features.

Subject to state availability, the investment choices in the contract include multiple fixed account options and one or more variable investment divisions (sub-accounts) of Massachusetts Mutual Variable Annuity Separate Account 4 (separate account). Each sub-account, in turn, invests in one of the following investment entities (funds). You, the contract owner, bear the entire investment risk for all amounts you allocate to a sub-account.

AIM Variable Insurance Funds (Invesco Variable Insurance Funds)
- Invesco Oppenheimer V.I. Capital Appreciation Fund
- Invesco Oppenheimer V.I. Conservative Balanced Fund
- Invesco Oppenheimer V.I. Discovery Mid Cap Growth Fund
- Invesco Oppenheimer V.I. Global Fund
- Invesco Oppenheimer V.I. Global Strategic Income Fund
- Invesco Oppenheimer V.I. Government Money Fund
- Invesco Oppenheimer V.I. International Growth Fund
- Invesco Oppenheimer V.I. Main Street Fund®
- Invesco V.I. Diversified Dividend Fund
- Invesco V.I. Health Care Fund
- Invesco V.I. Technology Fund

Fidelity® Variable Insurance Products Fund
- Fidelity® VIP Contrafund® Portfolio

MML Series Investment Fund
- MML Aggressive Allocation Fund
- MML Balanced Allocation Fund
- MML Blue Chip Growth Fund
- MML Conservative Allocation Fund
- MML Equity Income Fund
- MML Equity Index Fund
- MML Focused Equity Fund
- MML Foreign Fund
- MML Fundamental Equity Fund
- MML Fundamental Value Fund
- MML Global Fund
- MML Growth & Income Fund
- MML Growth Allocation Fund
- MML Income & Growth Fund
- MML International Equity Fund
- MML Large Cap Growth Fund
- MML Managed Volatility Fund
- MML Mid Cap Growth Fund
- MML Mid Cap Value Fund
- MML Moderate Allocation Fund
- MML Small Cap Growth Equity Fund
- MML Small/Mid Cap Value Fund
- MML Total Return Bond Fund

MML Series Investment Fund II
- MML Blend Fund
- MML Equity Fund
- MML High Yield Fund
- MML Inflation-Protected and Income Fund
- MML Managed Bond Fund
- MML Short-Duration Bond Fund
- MML Small Cap Equity Fund
- MML U.S. Government Money Market Fund

PIMCO Variable Insurance Trust
- PIMCO CommodityRealReturn® Strategy Portfolio

Voya Investors Trust
- VY® Clarion Global Real Estate Portfolio

To learn more about the contract, you can obtain a copy of the Statement of Additional Information (SAI), dated May 1, 2020. The SAI is incorporated by reference into this prospectus. The prospectus and SAI are parts of the registration statement that we filed with the Securities and Exchange Commission (SEC). The SEC maintains a website (http://www.sec.gov) that contains the registration statement, material incorporated by reference, and other information regarding companies that file electronically with the SEC. The table of contents for the SAI is on page 79 of this prospectus. For a free copy of the SAI, or for general inquiries, call our Service Center at (800) 272-2216 or write to our Service Center using the following address: MassMutual, Document Management Services – Annuities W360, P.O. Box 9067, Springfield, MA 01102-9067. (Overnight Mail Address: MassMutual, Document Management Services – Annuities W360, 1295 State Street, Springfield, MA 01111-0111)

Beginning January 1, 2021, we will no longer send you paper copies of fund shareholder reports (Reports) unless you specifically request paper copies from us. The Reports will be available online. We will notify you by mail each time the Reports are posted. The notice will provide the website link(s) to access the Reports as well as instructions for requesting paper copies. If you wish to continue receiving your Reports in paper free of charge from us, please call (866) 444-2450. Your election to receive the Reports in paper will apply to all funds available with your contract. If you have already elected to receive the Reports electronically, you will not be affected by this change and need not take any action. If you wish to receive the Reports and other SEC disclosure documents from us electronically, follow the instructions provided on the inside front cover of this prospectus.

The contract:
- is not a bank or credit union deposit or obligation.
- is not FDIC or NCUA insured.
- is not insured by any federal government agency.
- is not guaranteed by any bank or credit union.
- may go down in value.
- provides guarantees that are subject to our financial strength and claims-paying ability.

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

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

Please read this prospectus before investing. You should keep it for future reference. It contains important information about the MassMutual Transitions® Variable Annuity.

Effective May 1, 2020

Table of Contents

Index of Special Terms

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

The page that is indicated here is where we believe you will find the best explanation for the word or term.

Description of the Transitions Custom Plan and the Transitions Package Plan

There are two versions of the contract available: (1) the Transitions Custom Plan and (2) the Transitions Package Plan. The Transitions Custom Plan allows contract owners to custom build their own contract by adding additional contract features to the standard Transitions Custom Plan contract. The Transitions Custom Plan also allows contract owners to change certain contract features at a later date. The Transitions Package Plan consists of three distinct packages of contract features called Transitions Package I, Transitions Package II, and Transitions Package III. Both versions of the contract may not be available in all states.

You elect either the Transitions Custom Plan or the Transitions Package Plan at the time you purchase the contract. If you elect the Transitions Package Plan, you must also elect among Transitions Package I, II, or III at the time you purchase the contract. **If you elect Transitions Package I, II, or III, you may transfer among those three packages beginning on your second contract anniversary and on any contract anniversary thereafter. However, you cannot transfer from Transitions Package I, II, or III to the Transitions Custom Plan. If you elect the Transitions Custom Plan, you cannot transfer to Transitions Package I, II, or III, but you can add or change certain features after we issue your contract.**

As reflected in the Tables of Fees and Expenses, certain contract features can have a different cost under the Transitions Custom Plan, where they are purchased separately, than they will under the Transitions Package Plan, where they are purchased as part of a package of contract features. In fact, as illustrated in Table II on page 9, the maximum charges for a Transitions Custom Plan, with essentially the same features as a Transitions Package Plan, may be significantly higher than the maximum charges under the Transitions Package Plan. Please consult with a qualified financial professional when you are evaluating whether to elect the Transitions Custom Plan or the Transitions Package Plan.

We have provided further detail regarding the differences between the Transitions Custom Plan and the Transitions Package Plan on page 7 of the prospectus.

Contacting the Company

You may contact us by calling the MassMutual Customer Service Center (our Service Center) at (800) 272-2216 Monday through Friday between 8 a.m. and 8 p.m. Eastern Time. You may also contact us by visiting www.MassMutual.com/contact-us. Additionally, you may write to our Service Center using the following address: MassMutual, Document Management Services – Annuities W360, P.O. Box 9067, Springfield, MA 01102-9067 or to our overnight mail address at MassMutual, Document Management Services – Annuities W360, 1295 State Street, Springfield, MA 01111-0111.

Overview

The following is intended as a summary. Please read each section of this prospectus for additional detail.

We no longer sell the MassMutual Transitions contract. However, we continue to administer existing contracts, and we continue to accept purchase payments to existing contracts, subject to certain restrictions. See "Additional Purchase Payments."

This annuity is a contract between "you," the owner, and "us," Massachusetts Mutual Life Insurance Company ("MassMutual" or the "Company"). The contract is intended for retirement savings or other long-term investment purposes. In exchange for your purchase payments, we agree to pay you an income when you choose to receive it. You designate the date on which the income period begins. According to your contract, this date must be at least five years (13 months for contracts issued in New York) from when you purchase the contract for both full and partial annuity payments.

The contract has two phases – the accumulation phase and the income phase. Your contract is in the accumulation phase until you decide to begin receiving annuity payments. During the accumulation phase, you can apply purchase payments to your contract. Once you begin receiving annuity payments, that portion of your contract applied to an annuity option enters the income phase. Subject to certain restrictions, you may participate in both phases simultaneously if you apply a portion of your contract value to an annuity option.

Contract Type. The contract described in this prospectus is an individual or group deferred variable annuity. The contract provides for accumulation of contract value and annuity payments on a fixed and/or variable basis.

There are two versions of the contract available, subject to state availability:

- the Transitions Custom Plan and
- the Transitions Package Plan.

See "Description of the Transitions Custom Plan and the Transitions Package Plan."

The contract is called a variable deferred annuity because you can choose to allocate your purchase payments among various sub-accounts. Contract value allocated to a sub-account is not guaranteed. It is possible to lose your contract value allocated to any of the sub-accounts. If you allocate contract value to the sub-accounts, the amount you are able to accumulate in your contract depends upon the performance of the sub-accounts you select.

The Prospectus and the Contract. The prospectus and SAI describe all material terms and features of your contract. Certain non-material provisions of your contract may be different than the general description in the prospectus and the SAI, and certain riders may not be available because of legal requirements in your state. See your contract for specific variations since any such state variation will be included in your contract or in riders or endorsements attached to your contract.

Annuity Options. We make annuity payments based on the annuity option you elect. Subject to certain restrictions, you make a number of choices when you elect an annuity option. These choices include, but are not limited to: duration, number of payees, payments to beneficiaries, and whether payments will be variable and/or fixed payments. See "The Income Phase."

Investment Choices. You can choose to allocate your purchase payments among various investment choices. Subject to state availability, your investment choices include a number of sub-accounts and multiple fixed accounts. See "Investment Choices."

Withdrawals. Subject to certain restrictions, you may periodically make partial withdrawals of your contract value. If you make a full withdrawal of your contract value, all your rights under the contract will be terminated except as noted otherwise in this prospectus. Income taxes, tax penalties, a contingent deferred sales charge, and any applicable interest rate factor adjustment may apply to any withdrawal you request. See "Withdrawals," "Expenses – Contingent Deferred Sales Charge," "Appendix B – Long-Term Guarantee Fixed Account Interest Rate Factor Adjustment Calculation" and "Taxes."

Transfers. Subject to certain restrictions, you may periodically transfer contract value among available investment choices. See "Transfers and Transfer Programs."

Death Benefit. A beneficiary may receive a benefit in the event of your death prior to the income phase. Once the income phase commences, payments upon death may be available to beneficiaries depending on the annuity option elected. See "Death Benefit" and "The Income Phase."

Fees. Your contract value will be subject to certain fees. These charges will be reflected in your contract value and may be reflected in any annuity payments you choose to receive from the contract. See "Expenses" and "Table of Fees and Expenses."

Taxation. The Internal Revenue Code of 1986, as amended (IRC), has certain rules that apply to the contract. These tax treatments apply to earnings from the contract, withdrawals, death benefits and annuity options. See "Taxes."

Tax Deferral. You are generally not taxed on contract earnings until you take money from your contract. This is known as tax deferral. Tax deferral is automatically provided by tax-qualified retirement plans. There is no additional tax deferral provided when a variable annuity contract is used to fund a tax-qualified retirement plan. Investors should only consider buying a variable annuity to fund a qualified plan for the annuity's additional features such as lifetime income payments and death benefit protection.

Group Contracts. We may issue the contract as an individual or group variable annuity contract. In those states where we issue a group contract, we issue certificates to individuals, and these individuals are considered participants. The certificate is subject to the terms of the group contract under which we issue the certificate. You may become a participant under the group contract by completing an application and having it forwarded to us along with an initial purchase payment. The certificate we issue indicates the participant's rights and benefits under the group contract. Terms of the group contract are controlling.

The participant, as an owner, may exercise all rights and benefits of the certificate without the consent of the group contract owner. Unless we state otherwise, the owner of the certificate under a group contract and the owner of an individual contract have the same rights and benefits. As a result, the term "contract" means either an individual deferred variable annuity or a certificate issued under the group deferred variable annuity.

Right to Cancel Your Contract. You have a right to examine your contract. If you change your mind about owning your contract, you can generally cancel it within 10 calendar days after receiving it. However, this time period may vary by state. See "Right to Cancel Your Contract."

Our Claims-Paying Ability. Any guarantees we make under the contract are subject to our financial strength and claims-paying ability. See "Other Information – Our Ability to Make Payments Under the Contract."

Table I describes the differences between Transitions Packages I, II, and III and the Transitions Custom Plan. Table II provides a comparison of the charges for certain contract features available under both the Transitions Custom Plan and the Transitions Package Plan. Table III provides additional detail about the Transitions Custom Plan.

Please refer to "Description of the Transitions Custom Plan and the Transitions Package Plan" on page 4 of this prospectus for more detail on the differences between these two versions of the contract.

Table I – Transitions Custom Plan and Transitions Packages I, II, and III

*Contract Feature**	*Package I*	*Package II*	*Package III*	*Custom Plan*
Total Separate Account Annual Expenses(1)	0.95%	1.30%	1.55%	0.95%
Death Benefit(2)	Basic Death Benefit	Basic Death Benefit with 5% Roll-up Feature(8)	Basic Death Benefit with Annual Ratchet Feature	A choice of six death benefits (a charge or credit may apply)
Earnings Enhancement Benefit(2)	Not Available	Not Available	Automatically added as a supplement to the Basic Death Benefit with Annual Ratchet Feature	Available as a supplement to any of the death benefit features for an additional charge
Free Withdrawals(3)	10% free withdrawal provision	10% free withdrawal provision	15%/cumulative to 30% free withdrawal provision	A choice of three free withdrawal features. (a charge may apply)
Nursing Home Waiver – Waiver of Contingent Deferred Sales Charge(4)	Not Available	Included	Included	Available for an additional charge
Contingent Deferred Sales Charge(5)	7 year contingent deferred sales charge schedule	7 year contingent deferred sales charge schedule	7 year contingent deferred sales charge schedule	Choice of three contingent deferred sales charge schedules (a credit or charge may apply)
Credit Features(6)	Case Size Credit; Electronic Document Delivery Credit	Case Size Credit; Electronic Document Delivery Credit	Case Size Credit; Electronic Document Delivery Credit	Case Size Credit; Electronic Document Delivery Credit; Persistency Credit
Guaranteed Minimum Income Benefit Feature(7)	Not Available	Not Available	Not Available	Available with an additional charge

*Contract Feature**	*Package I*	*Package II*	*Package III*	*Custom Plan*
Guaranteed Minimum Accumulation Benefit Feature(7)	Not Available	Not Available	Not Available	Available with an additional charge
Equalizer Benefit Feature(7)	Not Available	Not Available	Not Available	Available with an additional charge

* *Certain contract features may not be available in all states.*

(1) *See "Table of Fees and Expenses" and "Expenses" for further explanation.*

(2) *See "Death Benefit" and "Additional Transitions Custom Plan Contract Features" for further explanation.*

(3) *See "Expenses – Free Withdrawals" and "Additional Transitions Custom Plan Contract Features" for further explanation.*

(4) *See "Nursing Home Waiver Benefit" and "Additional Transitions Custom Plan Contract Features" for further explanation.*

(5) *See "Expenses – Contingent Deferred Sales Charge" and "Additional Transitions Custom Plan Contract Features" for further explanation.*

(6) *See "Credit Features" for further explanation.*

(7) *See "Additional Transitions Custom Plan Contract Features" for further explanation.*

(8) *In certain states, the Package II Death Benefit may be the Basic Death Benefit with 3 Year Reset Feature.*

Table II

There are potential cost differences between the Transitions Custom Plan and the Transitions Package Plan, even when contract features are selected under the Transitions Customs Plan to match the features of a Transitions Package Plan. The table illustrates the current and maximum charges on an annualized basis you would incur if you elected contract features under the Transitions Custom Plan that match the contract features that are included under each of the Transitions Package Plans.

	Custom Plan		***Package I***	
Contract Features Custom Plan/Package I[(1)]	***Current***	***Maximum***	***Current***	***Maximum***
Basic Death Benefit	—	—	—	—
10% Free Withdrawal	—	—	—	—
Total Separate Account Expenses	0.95%	1.75%	0.95%	1.75%
Total Charges	0.95%	1.75%	0.95%	1.75%
	Custom Plan		***Package II***	
Contract Features Custom Plan/Package II[(1)]	***Current***	***Maximum***	***Current***	***Maximum***
Basic Death Benefit with 5% Roll-up Feature[(2)]	0.40%	0.50%–1.20%[(3)]	—	—
10% Free Withdrawal	—	—	—	—
Nursing Home Waiver	0.05%	0.10%	—	—
Total Separate Account Expenses	0.95%	1.75%	1.30%	1.75%
Total Charges	1.40%	2.35%–3.05%	1.30%	1.75%
	Custom Plan		***Package III***	
Contract Features Custom Plan/Package III[(1)]	***Current***	***Maximum***	***Current***	***Maximum***
Basic Death Benefit with Annual Ratchet Feature	0.25%	0.35%–0.80%[(3)]	—	—
Earnings Enhancement Benefit	0.15%	0.45%	—	—
15% Cumulative to 30% Free Withdrawal	0.15%	0.15%	—	—
Nursing Home Waiver	0.05%	0.10%	—	—
Total Separate Account Expenses	0.95%	1.75%	1.55%	1.75%
Total Charges	1.55%	2.80%–3.25%	1.55%	1.75%

(1) *Certain contract features may not be available in all states.*

(2) *In certain states, the death benefit available under Transitions Package II may be the Basic Death Benefit with 3 Year Reset Feature. The total current and maximum charges under Transitions Package II in these states are 1.30% and 1.75%, respectively. The current charge for this death benefit feature under the Transitions Custom Plan is 0.10%. The maximum charge for this death benefit feature under the Transitions Custom Plan varies by age and is 0.20% – 0.70%. The total current and maximum charges for a Transitions Custom Plan with contract features that match Transitions Package II contract features (as available in contracts issued in these states) are 1.10% and 2.05% – 2.55%, respectively. Please see the "Table of Fees and Expenses for the Transitions Custom Plan" for further explanation of the maximum charges for this death benefit feature.*

(3) *The maximum charges for these contract features vary by age. Please see the "Table of Fees and Expenses for the Transitions Custom Plan" for further explanation.*

Please note that, at your option, you may select additional contract features under the Transitions Custom Plan, for additional charges, that are not available under the Transitions Package Plan. We also note that the persistency credit is automatically included in the Transitions Custom Plan and not in the Transitions Package Plan; the persistency credit is included in the price of the Transitions Custom Plan.

Table III – Transitions Custom Plan

Contract Feature[1]	
Total Separate Account Annual Expenses[2]	0.95%
Death Benefit[3]	You automatically receive the Basic Death Benefit, unless you choose one of the following features. Instead of the Basic Death Benefit, you can choose any one of the following: • Contract Value Death Benefit (credit) • Basic Death Benefit with 3 Year Reset Feature (charge) • Basic Death Benefit with 5% Roll-up Feature (charge) • Basic Death Benefit with Annual Ratchet Feature (charge) • Basic Death Benefit with Combination Feature (charge)
Earnings Enhancement Benefit[3]	Available, for an additional charge, if you add it to one of the following Death Benefits: • Contract Value Death Benefit • Basic Death Benefit • Basic Death Benefit with 3 Year Reset Feature • Basic Death Benefit with 5% Roll-up Feature • Basic Death Benefit with Annual Ratchet Feature • Basic Death Benefit with Combination Feature
Free Withdrawals[4][5]	You automatically receive a 10% free withdrawal feature, unless you replace this with one of the following features: Instead of the 10% free withdrawal feature, you can elect one of the following: • 10%/20% Free Withdrawal Feature (charge) • 15%/Cumulative to 30% Free Withdrawal Feature (charge)
Nursing Home Waiver – Waiver of Contingent Deferred Sales Charge[4][6]	Available for an additional charge.
Contingent Deferred Sales Charge[4][7]	You automatically receive the 7 year contingent deferred sales charge schedule. Instead of the 7 year contingent deferred sales charge schedule, you may elect one of the following with a credit given or a charge assessed: • 5 year contingent deferred sales charge schedule (charge) • 9 year contingent deferred sales charge schedule (credit)
Credit Features[8]	• Case Size Credit • Electronic Document Delivery Credit • Persistency Credit
Guaranteed Minimum Income Benefit Feature[9]	You may elect, for an additional charge, one of the following Guaranteed Minimum Income Benefit features: • Return of Purchase Payment • 3% Guaranteed Minimum Income Benefit • 5% Guaranteed Minimum Income Benefit
Guaranteed Minimum Accumulation Benefit Feature[9]	You may elect, for an additional charge, one of the following Guaranteed Minimum Accumulation Benefit features: • Return of Purchase Payment • Two Times Return of Purchase Payment
Equalizer Benefit Feature[4][9]	Available for an additional charge.

(1) *Certain contract features may not be available in all states.*

(2) *See "Table of Fees and Expenses" and "Expenses" for further explanation.*

(3) *See "Death Benefit" and "Additional Transitions Custom Plan Contract Features" for further explanation.*

(4) *This contract feature is only available at the time you purchase your contract.*

(5) *See "Expenses – Free Withdrawals" and "Additional Transitions Custom Plan Contract Features" for further explanation.*

(6) *See "Nursing Home Waiver Benefit" and "Additional Transitions Custom Plan Contract Features" for further explanation.*

(7) *See "Expenses – Contingent Deferred Sales Charge" and "Additional Transitions Custom Plan Contract Features" for further explanation.*

(8) *See "Credit Features" for further explanation.*

(9) *See "Additional Transitions Custom Plan Contract Features" for further explanation.*

Table of Fees and Expenses

The following tables describe the fees and expenses you pay when buying, owning, and surrendering the contract. In addition to other fees and expenses shown below, premium taxes may also apply, but are not reflected below.

Transitions Custom Plan

Standard Contract Expenses

I. The first table describes the fees and expenses that you will pay at the time that you transfer the value between investment choices, or surrender the contract. We do not deduct a sales charge when we receive a purchase payment, but we may assess a contingent deferred sales charge as noted below.

Owner Transaction Expenses	*Current*	*Maximum*
Transfer Fee *During the Accumulation Phase*	$0	12 free transfers per calendar year; thereafter, $20 per transfer.
Contingent Deferred Sales Charge *(as a percentage of amount withdrawn or applied to Annuity Option E)*		
Standard	7%	7%
Optional Five Year *(extra charge applies)*	7%	7%
Optional Nine Year *(credit provided)*	8%	8%
Contingent Deferred Sales Charge Schedules		

Standard

Contract Year	1	2	3	4	5	6	7	8 and later
Percentage	7%	7%	7%	6%	5%	4%	3%	0%

Optional Five Year (extra charge applies)

Contract Year	1	2	3	4	5	6 and later
Percentage	7%	7%	7%	6%	5%	0%

Optional Nine Year (credit provided)

Contract Year	1	2	3	4	5	6	7	8	9	10 and later
Percentage	8%	8%	7%	6%	5%	4%	3%	2%	1%	0%

II. The next table describes fees and expenses you will pay periodically during the time you own the contract, not including underlying fund fees and expenses deducted.

Periodic Contract Charges	*Current*	*Maximum*
Annual Contract Maintenance Charge	$ 40(1)	$ 60
Separate Account Annual Expenses *(as a percentage of average account value in the separate account on an annualized basis)*		
Mortality and Expense Risk Charge	0.80%	1.50%
Administrative Charge	0.15%	0.25%
Total Separate Account Annual Expenses	0.95%	1.75%

(1) *Currently waived if contract value is $100,000 or greater when we are to assess the charge.*

Additional Transitions Custom Plan Contract Owner Expenses:

For an additional charge, there are a number of additional contract features available to you if you elect the Transitions Custom Plan. You must elect these features when you apply for a contract unless otherwise stated. If you elect an additional feature after the time you apply for a contract, the effective date of your election must be on your contract anniversary date immediately following your election. If you elect an additional feature, it will replace the corresponding standard feature available under the Transitions Custom Plan. **Certain contract features may not be available in all states.**

If you elect one or more of the following additional features, we will deduct a corresponding charge for each feature you elect. Charges for the additional features are in addition to the standard contract expenses.

In the first contract year, we base all charges for additional contract features on your purchase payments received by us during that contract year. We will assess a charge for each additional contract feature upon our receipt of each purchase payment made to your contract during your first contract year.

At the end of your first contract year and at the end of every contract year thereafter, we will calculate the charge for each additional contract feature based on your contract value at that time and we will deduct the charge on each contract anniversary while the feature is in effect.

If you elect an additional feature after you apply for a contract, we will deduct the charge on the contract anniversary date you elect the additional feature and on each contract anniversary date while the feature is in effect.

Charges are shown on an annual basis.

Five Year Contingent Deferred Sales Charge Feature

For an additional charge, you can elect to receive a five year contingent deferred sales charge schedule instead of the standard Transitions Custom Plan seven year contingent deferred sales charge schedule.

	Current Charge	***Maximum Charge***
Five Year Contingent Deferred Sales Charge Feature	0.20%	0.20%

Additional Free Withdrawal Features

For an additional charge, you can elect one of the following free withdrawal features as a replacement for the standard Transitions Custom Plan 10% free withdrawal provision:

	Current Charge	***Maximum Charge***
1. 10%/20% Free Withdrawal Feature	0.25%	0.25%
2. 15%/Cumulative to 30% Free Withdrawal Feature	0.15%	0.15%

Additional Death Benefit Features

For an additional charge, you can elect one of the following death benefit features as a replacement for the basic death benefit which is the standard death benefit for the Transitions Custom Plan:

	Current Charge	***Maximum Charge Ages:***		
		18 – 60	***61 – 70***	***71+***
1. *Basic Death Benefit with 3 Year Reset Feature*	0.10%	0.20%	0.30%	0.70%
2. *Basic Death Benefit with 5% Roll-up Feature*	0.40%	0.50%	0.75%	1.20%
3. *Basic Death Benefit with Annual Ratchet Feature*	0.25%	0.35%	0.55%	0.80%
4. *Basic Death Benefit with Combination Feature*	0.45%	0.50%	0.80%	1.25%

Earnings Enhancement Benefit Feature

For an additional charge, you can elect the earnings enhancement benefit to supplement any death benefit feature you have elected under the Transitions Custom Plan.

	Current Charge	***Maximum Charge***
1. *Earnings Enhancement Benefit if added to the Basic Death Benefit*	0.25%	0.45%
2. *Earnings Enhancement Benefit if added to the Contract Value Death Benefit*	0.30%	0.45%
3. *Earnings Enhancement Benefit if added to the Basic Death* Benefit *with 3 Year Reset Feature*	0.20%	0.45%
4. *Earnings Enhancement Benefit if added to the Basic Death Benefit with 5% Roll-Up Feature*	0.15%	0.45%

	Current Charge	*Maximum Charge*
5. *Earnings Enhancement Benefit if added to the Basic Death Benefit with Annual Ratchet Feature*	0.15%	0.45%
6. *Earnings Enhancement Benefit if added to the Basic Death Benefit with Combination Feature*	0.15%	0.45%

Guaranteed Minimum Income Benefits

For an additional charge, you can elect one of the following three guaranteed minimum income benefit options as an additional feature for a Transitions Custom Plan contract:

	Current Charge	*Maximum Charge*
1. *Return of Purchase Payment Guaranteed Minimum Income Benefit*	0.05%	0.20%
2. *3% Guaranteed Minimum Income Benefit*	0.20%	0.30%
3. *5% Guaranteed Minimum Income Benefit*	0.35%	0.55%

Guaranteed Minimum Accumulation Benefits

For an additional charge, you can elect one of the following two guaranteed minimum accumulation benefit options as an additional feature for a Transitions Custom Plan contract:

	Current Charge	*Maximum Charge*
1. *Return of Purchase Payment Guaranteed Minimum Accumulation Benefit*	0.35%	0.50%
2. *Two Times Return of Purchase Payment Guaranteed Minimum Accumulation Benefit*	0.35%	0.50%

Nursing Home Waiver Benefit

For an additional charge, you can elect the nursing home waiver as an additional feature for a Transitions Custom Plan contract:

	Current Charge	*Maximum Charge*
Nursing Home Waiver Feature	0.05%	0.10%

Equalizer Benefit

For an additional charge, you can elect the equalizer benefit as an additional feature for a Transitions Custom Plan contract:

	Current Charge	*Maximum Charge*
Equalizer Benefit Feature	0.50%	0.60%

Transitions Packages I, II and III

The following tables describe the fees and expenses that you will pay when buying, owning, and surrendering the contract.

I. The first table describes the fees and expenses that you will pay at the time that you transfer the value between investment choices, or surrender the contract. We do not deduct a sales charge when we receive a purchase payment, but we may assess a contingent deferred sales charge as noted below. Premium taxes may also be deducted, but are not reflected below.

Owner Transaction Expenses	*Current*	*Maximum*
Transfer Fee *During the Accumulation Phase*	$0	12 free transfers per calendar year; thereafter, $20 per transfer.
Contingent Deferred Sales Charge *(as a percentage of amount withdrawn or applied to Annuity Option E)*	7%	7%

Contingent Deferred Sales Charge Schedule

Contract Year	1	2	3	4	5	6	7	8 and later
Percentage	7%	7%	7%	6%	5%	4%	3%	0%

II. The next table describes fees and expenses you will pay periodically during the time you own the contract, not including fees and expenses deducted by the funds you select.

Periodic Contract Charges	*Current*	*Maximum*
Annual Contract Maintenance Charge	$40[(1)]	$60

Separate Account Annual Expenses *(as a percentage of average account value in the separate account on an annualized basis)*	*Current*	*Maximum*
	Transitions Package I	***Transitions Package I***
Mortality and Expense Risk Charge	0.80%	1.50%
Administrative Charge	0.15%	0.25%
Total Separate Account Annual Expenses	0.95%	1.75%
	Transitions Package II	***Transitions Package II***
Mortality and Expense Risk Charge	1.15%	1.50%
Administrative Charge	0.15%	0.25%
Total Separate Account Annual Expenses	1.30%	1.75%
	Transitions Package III	***Transitions Package III***
Mortality and Expense Risk Charge	1.40%	1.50%
Administrative Charge	0.15%	0.25%
Total Separate Account Annual Expenses	1.55%	1.75%

(1) *Currently waived if contract value is $100,000 or greater when we are to assess the charge.*

Annual Fund Operating Expenses

While you own the contract, if your assets are invested in any of the sub-accounts, you will be subject to the fees and expenses charged by the fund in which that sub-account invests. The table below shows the minimum and maximum total operating expenses charged by any of the funds, expressed as a percentage of average net assets, for the year ended December 31, 2019 (before any waivers or reimbursements). Current and future expenses may be higher or lower than those shown. More detail concerning each fund's fees and expenses that you may periodically be charged during the time that you own the contract is contained in each fund prospectus.

Charge	*Minimum*	*Maximum*
Total Annual Fund Operating Expenses that are deducted from fund assets, including management fees, distribution, and/or 12b-1 fees, and other expenses.(1)	0.42%	2.37%

(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.*

The information above describes the fees and expenses you pay related to the contract. For information on compensation we may receive from the funds and their advisers and sub-advisers, see "Investment Choices – Compensation We Receive from Funds, Advisers and Sub-Advisers." For information on compensation we pay to broker-dealers selling the contract, see "Other Information – Distribution."

Examples

Transitions Custom Plan

These Examples are intended to help you compare the cost of investing in the contract with the cost of investing in other variable annuity contracts. These costs include contract owner transaction expenses, contract fees, separate account annual expenses, and fund fees and expenses.

Example I assumes that you withdraw all your contract value at the end of each year shown.

Example II assumes you do not withdraw any contract value at the end of each year shown, or that you decide to begin the income phase at the end of each year shown and we do not deduct a contingent deferred sales charge.

Both Example I and Example II assume:

- that you invest $10,000 in the contract for the time periods indicated,
- that you allocate it to a sub-account that has a 5% gross return each year,
- that either the current or maximum fees and expenses in the "Table of Fees and Expenses" apply (the current expenses include separate account expenses of 0.95% and a charge of 2.30%, which is the current charge for the maximum number of additional contract features under the Transitions Custom Plan and the maximum expenses include separate account expenses of 1.75% and a charge of 3.90%, which is the maximum charge for the maximum number of additional contract features under the Transitions Custom Plan), and
- that you selected one of two sub-accounts:
  - the one that invests in the fund with the maximum total operating expenses, or
  - the one that invests in the fund with the minimum total operating expenses.

Examples Using Current Expenses

Based on the above assumptions, your costs would be as shown in the following table. Your actual costs may be higher or lower.

	Example I				Example II			
Years	**1**	**3**	**5**	**10**	**1**	**3**	**5**	**10**
Sub-Account with maximum total operating expenses	$1,191	$2,301	$3,224	$5,488	$565	$1,684	$2,789	$5,488
Sub-Account with minimum total operating expenses	$1,009	$1,780	$2,380	$3,925	$370	$1,125	$1,899	$3,925

Examples Using Maximum Expenses

Based on the above assumptions, your costs would be as shown in the following table. Your actual costs may be higher or lower.

	Example I				Example II			
Years	**1**	**3**	**5**	**10**	**1**	**3**	**5**	**10**
Sub-Account with maximum total operating expenses	$1,415	$2,852	$4,133	$7,039	$807	$2,346	$3,793	$7,039
Sub-Account with minimum total operating expenses	$1,234	$2,354	$3,368	$5,818	$612	$1,814	$2,990	$5,818

The examples using current expenses reflect the annual contract maintenance charge of $40 as an annual charge of 0.03%. The examples using maximum expenses reflect the annual contract maintenance charge of $60 as an annual charge of 0.05%.

The examples do not reflect any premium taxes. However, premium taxes may apply. The examples should not be considered a representation of past or future expenses. Your actual expenses may be higher or lower than those shown in the examples. The assumed 5% annual rate of return is hypothetical. Actual returns may be greater or less than the assumed hypothetical return.

There is an accumulation unit value history in "Appendix A – Condensed Financial Information."

Transitions Packages I, II and III

These Examples are intended to help you compare the cost of investing in the contract with the cost of investing in other variable annuity contracts. These costs include contract owner transaction expenses, contract fees, separate account annual expenses, and fund fees and expenses.

Example I assumes that you withdraw all your contract value at the end of each year shown.

Example II assumes you do not withdraw any contract value at the end of each year shown, or that you decide to begin the income phase at the end of each year shown and we do not deduct a contingent deferred sales charge.

Both Example I and Example II assume:

- that you invest $10,000 in the contract for the time periods indicated,
- that you allocate it to a sub-account that has a 5% gross return each year,
- that either the current or maximum fees and expenses in the "Table of Fees and Expenses" apply (for total separate account charges we assumed the current charge for Transitions Package III of 1.55% and for total separate account charges we assumed the maximum charge for Transitions Packages I, II & III of 1.75%), and
- that you selected one of two sub-accounts:
  - the one that invests in the fund with the maximum total operating expenses, or
  - the one that invests in the fund with the minimum total operating expenses.

Examples Using Current Expenses

Based on the above assumptions, your costs would be as shown in the following table. Your actual costs may be higher or lower.

	Example I				Example II			
Years	**1**	**3**	**5**	**10**	**1**	**3**	**5**	**10**
Sub-Account with maximum total operating expenses	$999	$1,710	$2,395	$4,156	$397	$1,202	$2,025	$4,156
Sub-Account with minimum total operating expenses	$818	$1,165	$1,481	$2,310	$202	$ 623	$1,070	$2,310

Examples Using Maximum Expenses

Based on the above assumptions, your costs would be as shown in the following table. Your actual costs may be higher or lower.

	Example I				Example II			
Years	**1**	**3**	**5**	**10**	**1**	**3**	**5**	**10**
Sub-Account with maximum total operating expenses	$1,020	$1,771	$2,495	$4,346	$419	$1,267	$2,129	$4,346
Sub-Account with minimum total operating expenses	$ 838	$1,228	$1,589	$2,539	$224	$ 691	$1,183	$2,539

The examples using current expenses reflect the annual contract maintenance charge of $40 as an annual charge of 0.05%. The examples using maximum expenses reflect the annual contract maintenance charge of $60 as an annual charge of 0.07%.

The examples do not reflect any premium taxes. However, premium taxes may apply. The examples should not be considered a representation of past or future expenses. Your actual expenses may be higher or lower than those shown in the examples. The assumed 5% annual rate of return is hypothetical. Actual returns may be greater or less than the assumed hypothetical return.

There is an accumulation unit value history in "Appendix A – Condensed Financial Information."

There is information concerning compensation payments we make to sales representatives in connection with sale of the contracts in "Other Information – Distribution."

The Company

In this prospectus, the "Company," "we," "us," and "our" refer to Massachusetts Mutual Life Insurance Company (MassMutual). 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.

Ownership of the Contract

Owner

In this prospectus, "you" and "your" refer to the owner. The owner is named at the time you apply for a contract. The owner can be an individual or a non-natural person (e.g., a corporation, limited liability company, partnership or certain other entities). We will not issue a contract to you if you have passed age 90 (age 85 for New York contracts) as of the date we proposed to issue the contract.

If your contract is non-qualified and owned by a non-natural person, the contract will generally not be treated as an annuity for tax purposes. This means that gain in the contract will be taxed each year while the contract is in the accumulation phase. This treatment is not generally applied to a contract held by a trust or other entity as an agent for a natural person. Before purchasing a contract to be owned by a non-natural person or before changing ownership on an existing contract that will result in it being owned by a non-natural person, you should consult a tax adviser to determine the tax impact. See "Taxes – Non-Natural Owner."

As the owner of the contract, you exercise all rights under the contract. You may change the owner of a non-qualified contract at any time prior to the annuity date by written request. However, in certain states you may not change contract owners without our approval. Changing the owner may result in tax consequences. On and after the annuity date, you continue as the owner.

Joint Owner

Non-qualified contracts can be owned by joint owners. However, the contract cannot be jointly owned if an owner is a non-natural person, and cannot be owned by more than two individuals. We will use the age of the oldest joint owner to determine all applicable benefits under the contract. We will not issue a contract to you if either proposed joint owner has passed age 90 (age 85 for New York contracts) as of the date we proposed to issue the contract. If there are joint owners, we require authorization from both joint owners for all transactions.

Annuitant

The annuitant is the person on whose life we base annuity payments. You designate the annuitant at the time of application. We will not issue a contract to you if the proposed annuitant has passed age 90 (age 85 for New York contracts) as of the date we proposed to issue the contract. You may change the annuitant before the annuity date subject to our approval. However, the annuitant may not be changed on a contract owned by a non-natural person unless the contract was issued under a plan pursuant to IRC Section 401(a), 408(a), 408(b) or 408A. We will use the age of the annuitant to determine all applicable benefits under a contract owned by a non-natural person.

Beneficiary

The beneficiary is the person(s) or entity you name to receive any death benefit. You name the beneficiary at the time of application. You may change the beneficiary at any time before you die. To change an irrevocable beneficiary, we must receive written authorization on our form in good order at our Service Center from the irrevocable beneficiary.

If you are married and your contract is issued under an ERISA plan, your ability to name a primary beneficiary other than your spouse is restricted.

Beneficiary IRA

Beneficiary, Inherited, Legacy or “Stretch” IRAs are all terms used to describe an IRA that is used exclusively to distribute death proceeds of an IRA or other qualified investment to the beneficiary over that beneficiary’s life expectancy in order to meet the required minimum distribution (RMD) rules. Upon the contract owner’s death under an IRA or other qualified contract, an “eligible designated beneficiary(ies)” may generally establish a Beneficiary IRA by either purchasing a new annuity contract or, in some circumstances, by electing the Beneficiary IRA payout option under the current contract. Until withdrawn, amounts in a Beneficiary IRA continue to be tax-deferred. Amounts withdrawn each year, including amounts that are required to be withdrawn under the RMD rules, are subject to tax.

If the contract owner died on or before December 31, 2019 (on or before December 31, 2021 for participants of a governmental plan or a plan maintained pursuant to a collective bargaining agreement), an individual designated beneficiary, and certain trusts as beneficiary, are treated as eligible designated beneficiaries, and can elect to take distributions over their life expectancy (life expectancy of the oldest trust beneficiary).

However, if the contract owner dies on or after January 1, 2020 (on or after January 1, 2022 for participants of a governmental plan or a plan maintained pursuant to a collective bargaining agreement), only certain designated beneficiaries are treated as eligible designated beneficiaries, and we will only offer the Beneficiary IRA payout option to a designated beneficiary who either (1) is the surviving spouse of the deceased qualified plan participant or IRA owner or, (2) is not more than ten years younger than the deceased qualified plan participant or IRA owner. In the future, we may allow additional classes of eligible designated beneficiaries to elect the Beneficiary IRA payout option. For a detailed list of eligibility requirements/restrictions, see “Death Benefit – Beneficiary IRA Election.”

Age

How We Determine Age of Annuitant, Owner and Beneficiary

In this prospectus the term "age," except when discussed in regards to specific tax provisions, is defined as "insurance age," which is a person's age on his/her birthday nearest the date for which the age is being determined. This means we calculate your age based on your nearest birthday, which could be either your last birthday or your next. For example, age 80 is generally the period of time between age 79 years, 6 months and 1 day and age 80 and 6 months.

Additional Purchase Payments

We no longer sell the MassMutual Transitions variable annuity contract. However, we do continue to administer existing contracts, and you may continue making additional purchase payments to your contract, subject to the limits described in this section.

The minimum amount we accepted for an initial purchase payment was:

- $15,000 when the contract was bought as a non-qualified contract; or
- $2,000 if you bought the contract as part of an IRA (Individual Retirement Annuity).

The minimum amount that you may allocate to a Long-Term Guarantee Fixed Account is $1,000.

If, when you applied for your contract, you elected to make purchase payments under our automatic investment plan option, we allowed you to satisfy the minimum initial payment requirement by making 12 consecutive monthly payments of as little as:

- $1,250 for a non-qualified contract, or
- $166.66 for an IRA contract.

Additional purchase payments may be made to the contract. However, additional purchase payments of less than $250 are subject to our approval.

The maximum amount of cumulative purchase payments we accept without our prior approval is based on your age when we issued the contract. The maximum amount is:

- $1 million up to age 75; or
- $500,000 if older than age 75

For contracts issued in New Jersey, the maximum amount of cumulative purchase payments we accept is based on your age when we issued the contract. The maximum amount is:

- $1 million up to age 75; or
- $500,000 if older than age 75.

If the owner is not a natural person, these purchase payment limits will apply to the annuitant's age. If there are joint owners, age refers to the oldest joint owner.

Age is as of the nearest birthday. For example, age 80 is generally the period of time between age 79 years, 6 months and 1 day and age 80 and 6 months. See "Age."

You can make additional purchase payments:

- by mailing your check that clearly indicates your name and contract number to our lockbox:

First Class Mail
MassMutual Transitions
Annuity Payment Services
MassMutual P.O. Box 74908
Chicago, IL 60675-4908

Overnight Mail
MassMutual Transitions
Annuity Payment Services
350 North Orleans Street
Receipt & Dispatch, 8th Floor
Suite 4908
Chicago, IL 60654

- by Wire Transfer

  JP Morgan Chase Bank
  New York, New York
  ABA #021000021
  MassMutual Account #323956297
  Ref: Annuity Contract #
  Name: (Your Name)

You may also send purchase payments to our Service Center. We have the right to reject any application or purchase payment.

Automatic Investment Plan (AIP)

Under the AIP, you may authorize us to periodically draw funds from an account of your choosing (restrictions may apply) for the purpose of making purchase payments to your contract. Contact our Service Center for information regarding setting up an AIP and any restrictions regarding use of the AIP.

Allocation of Purchase Payments

When you purchased your contract, we applied your purchase payment among the investment choices according to the allocation instructions you provided. If you make additional purchase payments and do not provide new allocation instructions, we will apply each according to the allocation instructions we have on record.

Currently, there is no limit to the number of investment choices that you may invest in at any one time. However, we reserve the right to limit the number of investment choices that you may invest in to a maximum of 18 investment choices (including the fixed accounts) at any one time in the event administrative burdens require such a limitation.

Once we receive your initial purchase payment and the necessary information in good order at our Service Center, we will issue your contract and apply your initial purchase payment within two business days. If you do not give us all of the information we need to issue your contract, we will notify you. When we receive all of the necessary information, we will then apply your initial purchase payment within two business days. If for some reason we are unable to complete this process within five business days, we will either send back your money or obtain your permission to keep it until we receive all of the necessary information.

If you add more money to your contract by making additional purchase payments, we will credit these amounts to your contract on the business day we receive them and all necessary information at our Service Center or lockbox. If we receive your purchase payment at our Service Center or lockbox on a non-business day or after the business day closes, we will credit the amount to your contract effective the next business day. Our business day closes when the New York Stock Exchange (NYSE) closes, usually 4:00 p.m. Eastern Time.

Right to Cancel Your Contract

You have a right to examine your contract. If you change your mind about owning your contract, you can cancel it within ten calendar days after receiving it. However, this time period may vary by state. When you cancel the contract within this time period, we will not assess a contingent deferred sales charge. Unless your state has other requirements, you will receive your contract value as of the business day we receive your contract and your written request in good order at our Service Center, and your contract will be terminated. If you purchase the contract as an IRA, we will return the greater of your purchase payments less any withdrawals you took, or the contract value. For contracts issued in New York, you will receive your contract value plus any previously deducted charges.

Investment Choices

You have a number of investment choices in the contract. These investment choices currently include multiple fixed account options as well as the underlying funds which are offered through our separate account. All of the investment choices are currently available under the Transitions Custom Plan and the Transitions Package Plan versions of the contract.

Choose Investment Choices Appropriate for You

When electing among your available investment choices consider your circumstances, investment goals, financial situation and risk tolerance. After you elect investment choices for your initial purchase payment, you should monitor and periodically re-evaluate your allocations to determine if they are still appropriate. Through the contract we offer a number of investment choices, but we do not recommend or endorse any particular investment choice and we do not provide investment advice. Because investment risk is borne by you, carefully consider your investment choice elections.

Understand the Risks Associated with Your Investment Choices

If your contract value is allocated to a fund, your contract value will be influenced by the investment performance of that fund. You will want to read the fund prospectus, especially the section discussing the risks of investing in the fund. We will deliver current fund prospectuses and/or current summary fund prospectuses to you. You may also contact our Service Center to request current fund prospectuses and summary fund prospectuses. Summary fund prospectuses for certain funds may be unavailable.

Be Informed

Read this prospectus. Also review information about the funds: the fund prospectus, statement of additional information, annual report and semiannual report.

The Separate Account

We established Massachusetts Mutual Variable Annuity Separate Account 4 (separate account) as a separate account under Massachusetts law on July 9, 1997. The separate account is registered with the SEC as a unit investment trust under the Investment Company Act of 1940 (1940 Act).

The separate account holds the assets that underlie the contracts, except those assets allocated to our general account. We keep the separate account assets separate from the assets of our general account and other separate accounts. The separate account is divided into sub-accounts, each of which invests exclusively in a single investment choice.

We own the assets of the separate account. We credit gains to, or charge losses against, the separate account, whether or not realized, without regard to the performance of other investment accounts. The separate account's assets may not be used to pay any of our liabilities other than those arising from the contracts. If the separate account's assets exceed the required reserves and other liabilities, we may transfer the excess to our general account. The obligations of the separate account are not our generalized obligations and will be satisfied solely by the assets of the separate account.

The Funds

The following funds are available as investment choices under the contract. If your contract value is allocated to a fund, your contract value will be influenced by the investment performance of that fund.

These funds are only available to insurance company separate accounts and qualified retirement plans, are not available for purchase directly by the general public, and are not the same as other mutual fund portfolios with very similar or nearly identical names and investment goals and policies that are sold directly to the public. While a fund may have many similarities to these other publicly available mutual funds, you should not expect the investment results of the fund to be the same as the investment results of those publicly available mutual funds. We do not guarantee or make any representation that the investment results of the funds will be comparable to the investment results of any other mutual fund, even a mutual fund with the same investment adviser or manager.

Fund Type	Investment Funds in Which the Sub-Accounts Purchase Shares	Investment Fund's Adviser and Sub-Adviser
Asset Allocation		
	MML Aggressive Allocation Fund (Initial Class)[(1)]	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** N/A

Fund Type	Investment Funds in Which the Sub-Accounts Purchase Shares	Investment Fund's Adviser and Sub-Adviser
Asset Allocation (continued)		
	MML Balanced Allocation Fund (Initial Class)[(1)]	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** N/A
	MML Conservative Allocation Fund (Initial Class)[(1)]	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** N/A
	MML Growth Allocation Fund (Initial Class)[(1)]	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** N/A
	MML Moderate Allocation Fund (Initial Class)[(1)]	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** N/A
Money Market		
	Invesco Oppenheimer V.I. Government Money Fund (Series I)[(2)(3)]	***Adviser:***Invesco Advisers, Inc. ***Sub-Adviser:***N/A
	MML U.S. Government Money Market Fund (Initial Class)[(2)]	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Barings LLC
Fixed Income		
	Invesco Oppenheimer V.I. Global Strategic Income Fund (Series I)	***Adviser:***Invesco Advisers, Inc. ***Sub-Adviser:***N/A
	MML High Yield Fund (Service Class I)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Barings LLC
	MML Inflation-Protected and Income Fund (Initial Class)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Barings LLC
	MML Managed Bond Fund (Initial Class)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Barings LLC
	MML Short-Duration Bond Fund (Service Class I)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Barings LLC
	MML Total Return Bond Fund (Service Class I)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Metropolitan West Asset Management, LLC
Balanced		
	Invesco Oppenheimer V.I. Conservative Balanced Fund (Series I)[(4)]	***Adviser:***Invesco Advisers, Inc. ***Sub-Adviser:***N/A
	MML Blend Fund (Initial Class)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Barings LLC
Large Cap Value		
	MML Equity Fund (Initial Class)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Advisers:*** OppenheimerFunds, Inc. and Brandywine Global Investment Management, LLC
	MML Equity Income Fund (Initial Class)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** T. Rowe Price Associates, Inc.
	MML Fundamental Value Fund (Service Class I)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Boston Partners Global Investors, Inc.
	MML Income & Growth Fund (Initial Class)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Barrow, Hanley, Mewhinney & Strauss, LLC
Large Cap Blend		
	Fidelity® VIP Contrafund® Portfolio (Initial Class)	***Adviser:*** Fidelity Management & Research Company ***Sub-Adviser:*** FMR Co., Inc.
	Invesco Oppenheimer V.I. Main Street Fund® (Series I)	***Adviser:***Invesco Advisers, Inc. ***Sub-Adviser:***N/A

Fund Type	Investment Funds in Which the Sub-Accounts Purchase Shares	Investment Fund's Adviser and Sub-Adviser
Large Cap Blend (continued)		
	Invesco V.I. Diversified Dividend Fund (Series I)	***Adviser:*** Invesco Advisers, Inc. ***Sub-Adviser:*** N/A
	MML Equity Index Fund (Class I)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Northern Trust Investments, Inc.
	MML Focused Equity Fund (Service Class I)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Wellington Management Company LLP
	MML Fundamental Equity Fund (Service Class I) *	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Invesco Advisers, Inc.
	MML Growth & Income Fund (Initial Class)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Massachusetts Financial Services Company
Large Cap Growth		
	Invesco Oppenheimer V.I. Capital Appreciation Fund (Series I)	***Adviser:*** OFI Global Asset Management, Inc. ***Sub-Adviser:*** OppenheimerFunds, Inc.
	MML Blue Chip Growth Fund (Initial Class)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** T. Rowe Price Associates, Inc.
	MML Large Cap Growth Fund (Initial Class)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Loomis, Sayles & Company, L.P.
Small/Mid Cap Value		
	MML Mid Cap Value Fund (Initial Class)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** American Century Investment Management, Inc.
	MML Small/Mid Cap Value Fund (Initial Class)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** AllianceBernstein L.P.
Small/Mid Cap Blend		
	MML Small Cap Equity Fund (Initial Class)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** OppenheimerFunds, Inc.
Small/Mid Cap Growth		
	Invesco Oppenheimer V.I. Discovery Mid Cap Growth Fund (Series I)	***Adviser:***Invesco Advisers, Inc. ***Sub-Adviser:***N/A
	MML Mid Cap Growth Fund (Initial Class)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Advisers:*** T. Rowe Price Associates, Inc. and Wellington Management Company LLP
	MML Small Cap Growth Equity Fund (Initial Class)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Wellington Management Company LLP
International/Global		
	Invesco Oppenheimer V.I. Global Fund (Series I)	***Adviser:***Invesco Advisers, Inc. ***Sub-Adviser:***N/A
	Invesco Oppenheimer V.I. International Growth Fund (Series I)	***Adviser:***Invesco Advisers, Inc. ***Sub-Adviser:***N/A
	MML Foreign Fund (Initial Class)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:***Thompson, Siegel & Walmsley LLC
	MML Global Fund (Class I)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Massachusetts Financial Services Company
	MML International Equity Fund (Service Class I)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Harris Associates L.P.

Fund Type	Investment Funds in Which the Sub-Accounts Purchase Shares	Investment Fund's Adviser and Sub-Adviser
Specialty		
	Invesco V.I. Health Care Fund (Series I)	***Adviser:*** Invesco Advisers, Inc. ***Sub-Adviser:*** N/A
	Invesco V.I. Technology Fund (Series I)	***Adviser:*** Invesco Advisers, Inc. ***Sub-Adviser:*** N/A
	MML Managed Volatility Fund (Initial Class)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Gateway Investment Advisers, LLC
	PIMCO CommodityRealReturn® Strategy Portfolio (Advisor Class)	***Adviser:*** Pacific Investment Management Company LLC ***Sub-Adviser:*** N/A
	VY® Clarion Global Real Estate Portfolio (Class S)	***Adviser:*** Voya Investments, LLC ***Sub-Adviser:*** CBRE Clarion Securities LLC

* *Individual Fund Footnote(s):*
MML Fundamental Equity Fund formerly known as MML Fundamental Growth Fund.

(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) *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 sub-account that invests in this fund could be negative.*

(3) *Unavailable in contracts issued on or after January 19, 2008.*

(4) *Effective May 1, 2009 and after, you may not allocate any new money to this fund via purchase payments or transfers.*

There is no assurance that the funds will achieve their stated objective. The fund prospectuses contain more detailed information about the funds. We will deliver current fund prospectuses and/or current summary fund prospectuses to you. You may also contact our Service Center to request current fund prospectuses and summary fund prospectuses. Summary fund prospectuses for certain funds may be unavailable. You should read the information contained in the fund prospectuses carefully before investing.

Addition, Removal, Closure or Substitution of Funds

We have the right to change the funds offered through the contract, 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 contract 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 sub-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 contracts to which your contract belongs.

Conflicts of Interest

The funds available with the contract 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 this, 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 Advisers and Sub-Advisers

We and certain of our insurance affiliates 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 contract 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 the variable annuity and variable life insurance products issued by us and our affiliates that offer the particular fund (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 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. Contract owners, through their indirect investment in the funds, bear the costs of these advisory fees (see the funds' prospectuses for more 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 and sub-advisers currently pay such compensation, visit www.MassMutual.com/legal/compensation-arrangements or call our Service Center at the number shown on page 1 of this prospectus.**

Compensation We Receive from Funds

We and certain of our affiliates also receive compensation from certain funds pursuant to Rule 12b-1 under the 1940 Act. This compensation is paid out of the fund's assets and may be as much as 0.25% of the average net assets of an underlying fund which are attributable to MassMutual's variable contracts. An investment in a fund with a 12b-1 fee will increase the cost of your investment in the contract.

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 contract at least in part because they are managed by us or an affiliate.

The Fixed Accounts

In most states, we offer the following fixed accounts (collectively, the fixed accounts) as investment choices:

- Fixed Accounts for Dollar Cost Averaging (the DCA Fixed Accounts);
- Fixed Accounts with a Long-Term Guarantee (the Long-Term Guarantee Fixed Accounts); and
- The Fixed Account.

Purchase payments allocated to the fixed accounts and transfers to the fixed accounts become part of our general account which supports insurance and annuity obligations. The general account has not been registered under the Securities Act of 1933 (1933 Act) nor is the general account registered under the 1940 Act because of exemptive and exclusionary provisions.

Accordingly, neither the general account nor any interests therein are generally subject to the provisions of the 1933 Act or the 1940 Act. Disclosures regarding the fixed accounts or the general 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. For more information about our general account see "Other Information – Our Ability to Make Payments Under the Contract."

DCA Fixed Accounts

Each DCA Fixed Account is a fixed account from which assets are systematically transferred to any fund(s) you select. You may not transfer your contract value in the DCA Fixed Account to The Fixed Account or a Long-Term Guarantee Fixed Account. During the accumulation phase, you may choose to have your purchase payments allocated to a DCA Fixed Account for the period of the DCA Fixed Account Term (DCA Term). Your election must be in writing.

Currently, you have a choice of three DCA Fixed Accounts:

- DCA Fixed Account with a DCA Term of 6 months;
- DCA Fixed Account with a DCA Term of 12 months; or
- DCA Fixed Account with a DCA Term of 18 months.

To the extent permitted by law, we reserve the right to change the duration of the DCA Term in the future. Your DCA Term will terminate upon payment of the death benefit. You may participate in only one DCA Fixed Account at a time.

How to Participate in the DCA Fixed Account

To participate in the DCA Fixed Account you must apply a new purchase payment of $5,000 or greater to a DCA Term or provide us with evidence satisfactory to us that you will apply $5,000 or more to a DCA Term via transfer(s) from another financial institution. Purchase payments which originate from an annuity contract issued by us or any of our affiliates cannot be allocated to a DCA Fixed Account. We reserve the right to reject purchase payments. You cannot transfer current contract values into the DCA Fixed Account. The first DCA transfer will occur five business days after we receive all or a portion of the purchase payment into the DCA Fixed Account.

Any portion of the sum to be applied to the DCA Fixed Account that we receive after the start of the DCA Term, will be added to the amount in the current DCA Term and will participate only in the remaining period of that DCA Term. You may apply additional purchase payments to the current DCA term. Those additional purchase payments will be added to the amount in the current DCA Term and will participate only in the remaining period of the current DCA Term.

We only make scheduled monthly transfers from the DCA Fixed Account. The first transfer will occur five business days after we receive your payment allocated to the DCA Fixed Account and a completed DCA Fixed Account election form. You may not take partial withdrawals from the DCA Fixed Account. If you withdraw the entire contract value during a DCA term, we will apply our normal withdrawal provisions.

You may make a one-time transfer for your remaining contract value in the DCA Fixed Account into any of the funds prior to the expiration of your DCA Term. Your transfer will be effective on the business day we receive, in good order, your written request or telephone request at our Service Center. Our business day closes when the NYSE closes, usually 4:00 p.m. Eastern Time. If we receive your transfer request in good order at our Service Center on a non-business day or after our business day closes, your transfer request will be effective on the next business day.

We reserve the right to assess a fee for processing transactions under the DCA Fixed Account.

If you elect to make an allocation to a DCA Fixed Account, but your annuity date will occur prior to the end of that DCA Term, your DCA Term will expire early. It will expire on your annuity date. We will transfer any contract value remaining in the DCA Fixed Account on your annuity date in accordance with your DCA Fixed Account transfer instructions in effect at that time. No amounts will remain in the DCA Fixed Account after your annuity date.

We periodically set the interest rate we credit to the DCA Fixed Account. We will credit an interest rate at a rate not less than the minimum allowed by state law at the time we issue your contract. We reserve the right to change the guaranteed minimum interest rate for newly issued contracts, subject to applicable state law. The interest rate you will receive for the entire DCA Term is the interest rate in effect on the date your DCA Term begins. We guarantee the interest rate for the full DCA Term.

Long-Term Guarantee Fixed Accounts

We currently offer four Long-Term Guarantee Fixed Accounts. You may allocate purchase payments or transfer part of your contract value to the Long-Term Guarantee Fixed Accounts during the accumulation phase of your contract. We will only accept a purchase payment or transfer to a Long-Term Guarantee Fixed Account as of the beginning of a guarantee period. The minimum purchase payment or transfer amount we permit to any of the Long-Term Guarantee Fixed Accounts is $1,000. You may only transfer contract value from a Long-Term Guarantee Fixed Account during the window period. The window period is the last 15 calendar days of a guarantee period and the first 15 calendar days of the immediately following guarantee period.

Each Long-Term Guarantee Fixed Account guarantees that we will credit your value in that fixed account with a specific rate of interest for a specific guarantee period. The guarantee periods of the Long-Term Guarantee Fixed Accounts are currently 3, 5, 7, and 10 years. The guarantee period for a Long-Term Guarantee Fixed Account begins on the date we apply the purchase payment or transferred contract value to the Long-Term Guarantee Fixed Account and ends on the last day of a guarantee period. Amounts you allocate or transfer to any of the Long-Term Guarantee Fixed Accounts earn interest at the guaranteed rate applicable to the Long-Term Guarantee Fixed Account on the date we credit the amount to the Long-Term Guarantee Fixed Account. The interest rate we credit remains constant during the Long-Term Guarantee Fixed Account guarantee period. You may allocate amounts to multiple Long-Term Guarantee Fixed Accounts. We may change the terms of the Long-Term Guarantee Fixed Accounts at any time.

We will notify you in writing regarding your renewal options prior to the last day of a guarantee period. If we receive a written request in good order at our Service Center at least three business days prior to the last day of a guarantee period, you may elect a renewal guarantee period from any of the guarantee periods that we are currently offering at that time to new contract owners. Alternatively, you may transfer your contract value in the Long-Term Guarantee Fixed Account to another investment choice. If you have not elected otherwise by written request sent to our Service Center, in good order, we will automatically invest your contract value in the Long-Term Guarantee Fixed Account as of the last day of the guarantee period in a Long-Term Guarantee Fixed Account with the same guarantee period as the immediately preceding guarantee period. If we are not offering a guarantee period for the same length of time as your guarantee period just ended, we will invest your contract value in a Long-Term Guarantee Fixed Account with the next shorter guarantee period being offered by us to new contract owners at that time.

A renewal guarantee period cannot be less than 12 months and cannot extend beyond your annuity date unless the period from the last day of the guarantee period to your annuity date is less than 12 months. If the period from the last day of the guarantee period to your annuity date is less than 12 months, your renewal guarantee period will be the shortest guarantee period we offer and your annuity date will become the last day of your new guarantee period.

We will send you a written notice of the guaranteed interest rate for a renewal Long-Term Guarantee Fixed Account for each available guarantee period before the last day of each guarantee period. We will credit an interest rate at a rate not less than the minimum allowed by state law at the time we issue your contract. We reserve the right to change the guaranteed minimum interest rate for newly issued contracts, subject to applicable state law.

Except during the window period, we will apply an interest rate factor adjustment to any partial or full withdrawal of contract value from a Long-Term Guarantee Fixed Account. Any withdrawal of contract value may also be subject to a contingent deferred sales charge even if the withdrawal occurs during the window period. We will apply the interest rate factor adjustment prior to assessing a contingent deferred sales charge. **The interest rate factor adjustment may increase or decrease your contract value.**

We will waive a negative interest rate factor adjustment if:

(1) the withdrawal is taken as part of our required minimum distribution (RMD) program;

(2) the RMD amount is calculated using only the assets held under this contract;

(3) the RMD is for the current calendar year; and

(4) in that contract year, RMD withdrawals for only a single calendar year are taken.

See “Appendix B – Long-Term Guarantee Fixed Account Interest Rate Factor Adjustment Calculation” for the formula used to calculate the interest rate factor adjustment.

The Fixed Account

You may allocate purchase payments to The Fixed Account. You can also make transfers of your contract value into or from The Fixed Account, subject to certain limitations. You do not participate in the investment performance of the assets in The Fixed Account. Instead, we credit your contract with interest at a specified rate that we declare in advance. We will credit an interest rate at a rate not less than the minimum allowed by state law at the time we issue your contract. We reserve the right to change the guaranteed minimum interest rate for newly issued contracts, subject to applicable state law. We may credit a higher rate of interest at our discretion.

Contract Value

Your contract value is the sum of your value in the sub-accounts and the fixed accounts.

Your value in the separate account will vary depending on the investment performance of the funds you choose. In order to keep track of your contract value in the separate account, we use a unit of measure called an accumulation unit. During the income phase of your contract we call the unit an annuity unit if a variable annuity option is elected.

Accumulation Units

Every business day we determine the value of an accumulation unit for each of the sub-accounts. Changes in the accumulation unit value reflect the investment performance of the fund as well as deductions for insurance and other charges.

The value of an accumulation unit may go up or down from business day to business day. The SAI contains more information on the calculation of the accumulation unit value.

When you make a purchase payment, we credit your contract with accumulation units. We determine the number of accumulation units to credit by dividing the amount of the purchase payment allocated to a sub-account by the value of the accumulation unit for that sub-account. When you make a withdrawal, we deduct from your contract accumulation units representing the withdrawal amount.

We calculate the value of an accumulation unit for each sub-account after the NYSE closes each business day. Any change in the accumulation unit value will be reflected in your contract value.

Example:

On Monday we receive an additional purchase payment of $5,000 from you. You have told us you want this to go to the MML Managed Bond sub-account. When the NYSE closes on that Monday, we determine that the value of an accumulation unit for the MML Managed Bond sub-account is $13.90. We then divide $5,000 by $13.90 and credit your contract on Monday night with 359.71 accumulation units for the MML Managed Bond sub-account.

Business Days and Non-Business Days

Our business day closes when the NYSE business day closes. The NYSE business day usually closes at 4:00 p.m. Eastern Time. Our non-business days are those days when the NYSE is not open for trading.

Sending Requests in Good Order

From time to time you may want to submit a request for transfer among investment choices, a withdrawal, a change of beneficiary, or some other action. We can only act upon your request if we receive it in "good order." Contact our Service Center to learn what information we require for your request to be in "good order." Generally, your request must include the information and/or documentation we need to complete the action without using our own discretion to carry it out. Additionally, some actions may require that you submit your request on our form. We may, in our sole discretion, determine whether any particular transaction request is in good order, and we reserve the right to change or waive any good order requirements at any time. To help protect against unauthorized or fraudulent telephone instructions, we will use reasonable procedures to confirm that telephone instructions given to us are genuine. We may record all telephone instructions.

In addition to written requests, we may allow requests to our Service Center:

- by fax at (866) 329-4272,
- by e-mail at ANNfax@MassMutual.com,
- by telephone at (800) 272-2216, or
- by internet at www.MassMutual.com/loginsc.

Fax, telephone, e-mail or internet transactions may not always be available. Fax, telephone 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 fax, telephone or the internet.

Transfers and Transfer Programs

General Overview

We have the right to terminate, suspend, or modify the transfer and transfer program provisions described in this prospectus.

Transfers Among Investment Choices

Generally, you can transfer all or part of your contract value among investment choices. However, there are restrictions that are detailed later in this section.

Transfer Requests

You can transfer all or part of your contract value. You can make transfers by written request, e-mail, telephone, fax, or by other means we authorize. You must clearly indicate the amount and investment choices from and to which you wish to transfer.

Your registered representative may provide us with instructions on your behalf involving fund transfers subject to our rules and requirements, including the restrictions on frequent trading and market timing activities.

Transfer Effective Date

Your transfer is effective on the business day we receive your request in good order at our Service Center. Our business day closes when the NYSE closes, usually 4:00 p.m. Eastern Time. If we receive your transfer request in good order at our Service Center on a non-business day or after our business day closes, your transfer request will be effective on the next business day.

Transfers During the Accumulation Phase

Transfer Fee

You can make a transfer to or from any fund, the Long-Term Guarantee Fixed Accounts, and The Fixed Account. During the accumulation phase we do not assess a transfer fee. However, we reserve the right to allow 12 free transfers per calendar year and charge an amount of $20 per transfer in excess of 12.

Transfer Amounts

Currently, the minimum amount that you can transfer to a Long-Term Guarantee Fixed Account is $1,000. We currently do not restrict the amount that you can transfer to a fund or The Fixed Account. However, we reserve the right to institute a minimum transfer amount equal to $1,000 or the entire value in a fund or The Fixed Account, if less.

We currently do not require that a minimum balance remain in the fund, The Fixed Account or Long-Term Guarantee Fixed Accounts after a transfer. However, we reserve the right to require that a $1,000 minimum balance remain in these investment choices after a transfer.

Limits on Transfers

References to "The Fixed Account" pertain only to The Fixed Account and not the DCA Fixed Accounts. For DCA Fixed Account transfer rules see "Investment Choices – The Fixed Accounts – DCA Fixed Accounts."

- If your contract value in The Fixed Account is $500 or less at the time of your transfer, then you may transfer the entire amount out of The Fixed Account.

  If your contract value in The Fixed Account is more than $500, then we limit transfers out of The Fixed Account. During the first contract year, we limit transfers from The Fixed Account to 30% of your contract value allocated to The Fixed Account as of the time of the first transfer. We limit transfers from The Fixed Account during any subsequent contract year to 30% of your contract value in The Fixed Account as of the end of the previous contract year. However, if you transfer 30% of your contract value in The Fixed Account for three consecutive contract years, your transfer in the fourth consecutive contract year may be for the entire amount in The Fixed Account, provided that you have not applied payments or transferred contract value into The Fixed Account from the time the first annual transfer was made. We measure a contract year from the anniversary of the day we issued your contract. We calculate transfers out of The Fixed Account on a first-in, first-out basis. In other words, we transfer amounts attributed to the oldest purchase payments first; then we transfer amounts attributed to the next oldest purchase payment; and so on.
- We allow transfers from a Long-Term Guarantee Fixed Account only during the window period. We will not apply an interest rate factor adjustment to a transfer from a Long-Term Guarantee Fixed Account during the window period. The window period is the last 15 calendar days of a guarantee period and the first 15 calendar days of the following guarantee period.
- We consider The Fixed Account, the Long-Term Guarantee Fixed Accounts and a money market fund to be "competing accounts." Transfers between competing accounts are not allowed, except as described in this paragraph. For a period of ninety days following a transfer out of a competing account, no transfers may be made into that same account or any other competing account. However, transfers may be made from a money market fund to The Fixed Account and the Long-Term Guarantee Fixed Accounts, without regard to the competing account restrictions.

Limits on Frequent Trading and Market Timing Activity

The contract 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 contract owners and beneficiaries under the contract, including long-term contract owners who do not engage in these activities. Therefore, we discourage frequent trading and market timing trading activity and will not accommodate frequent transfers of contract value among the funds. Organizations and individuals that intend to trade frequently and/or use market timing investment strategies should not purchase the contract.

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 contract 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 sub-accounts, there can be no assurance that we will be able to identify and curtail every instance of trading of those who trade frequently or those who employ a market timing strategy or those who act as intermediaries on behalf of such persons. 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. As a result of these factors, the funds may reflect lower performance and higher expenses across all contracts as a result of undetected abusive trading practices.

If we, or the investment adviser to any of the funds available with the contract, determine that a contract owner's transfer patterns reflect frequent trading or employment of a market timing strategy, we will allow the contract owner to submit transfer requests by regular mail only. We will not accept other owner transfer requests 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.

The 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 and 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 contract owners, and to execute instructions from the fund to restrict or prohibit further purchases or transfers by specific contract owners who violate the frequent trading or market timing policies established by the fund.

Contract owners and other persons with interests in the contracts 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 that we restrict or prohibit further purchases or transfers as requested by a fund on all contracts owned by a contract 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 contract 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 a contract owner or other person authorized to conduct a transfer;
- limit the number of transfer requests that can be made during a contract 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 contract 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 contract owners.

Transfers During the Income Phase

You may make six transfers between the funds each calendar year. We will not assess a transfer fee on those transfers. You cannot transfer from the general account to a fund, but you can transfer from one or more funds to the general account once per contract year. We currently do not restrict the amount that you can transfer. However, we reserve the right to institute a minimum transfer amount equal to $1,000 or the entire value in a fund, if less. After a transfer, the minimum amount which must remain in a fund is $1,000 unless you have transferred the entire value.

Transfer Programs

For detailed rules and restrictions pertaining to these programs and instructions for electing a program contact our Service Center.

Overview

We currently offer the following transfer programs:

- Separate Account Dollar Cost Averaging Program;
- Automatic Rebalancing Program; and
- Interest Sweep Option.

These programs are only available during the accumulation phase of your contract.

You may only participate in one of these programs at any one time.

You may not participate in these programs if you have a current election of a DCA Fixed Account.

Transfers made through a transfer program are not subject to transfer fees and do not count towards any free transfers you may be permitted each year.

We do not charge you for participation in these programs, though we reserve the right to charge for the programs in the future.

Separate Account Dollar Cost Averaging Program

This program allows you to systematically transfer a set amount or percentage from a selected fund to any of the other funds. By allocating amounts on a regular schedule as opposed to allocating the total amount at one particular time, you may be less susceptible to the impact of market fluctuations. Dollar cost averaging does not assure a profit and does not protect you against loss in declining markets. Since dollar cost averaging involves continuous investment in securities regardless of fluctuating price levels of such securities, you should consider your financial ability to continue the program through periods of fluctuating price levels.

Your Separate Account Dollar Cost Averaging Program will terminate:

- if you withdraw the total contract value;
- upon payment of the death benefit;
- if the last transfer you selected has been made;
- if there is insufficient contract value in the source fund to make the transfer; or
- if we receive from you, in good order, a written request or request over the telephone to terminate the program prior to the next scheduled transfer date.

Automatic Rebalancing Program

Over time, the performance of each fund may cause your allocation to shift from your original allocation. You can direct us to automatically rebalance your contract value allocated to the funds in order to return to your original percentage allocations by selecting our Automatic Rebalancing Program. Contract value allocated to the fixed accounts cannot participate in the Automatic Rebalancing Program.

This program will terminate:

- if you withdraw the total contract value;
- upon payment of the death benefit;
- if we receive from you, in good order, a written request or a request over the telephone to terminate the program
- if we receive any unscheduled transfer request.

Interest Sweep Option

Under this program, we will automatically transfer earnings from your contract value in The Fixed Account to any one fund or combination of funds that you select, except a money market fund. By allocating these earnings to the funds, you can pursue further growth in the value of your contract through more aggressive investments. However, the Interest Sweep Option does not assure a profit and does not protect against loss in declining markets.

This program will terminate:

- if, as the result of a withdrawal, you no longer have contract value in The Fixed Account;
- if, at time of transfer, no interest is available for transfer (for example, if the interest earned is required to cover contract related charges or has been part of a partial withdrawal);

- upon payment of the death benefit; or
- if we receive from you, in good order, a written request or request over the telephone to terminate the program prior to the next scheduled transfer date.

Withdrawals

Your ability to take a withdrawal may be restricted by certain provisions of the Internal Revenue Code. Furthermore, if your contract is issued under a qualified plan, your ability to take a withdrawal may be restricted by your plan documents. Income taxes, tax penalties, a contingent deferred sales charge and certain restrictions may apply to any withdrawal you make.

During the accumulation phase you may withdraw all or a portion of your contract value at any time.

When a partial withdrawal is made from a contract, we reflect the withdrawal as a reduction to the value of the contract's death benefit and any elected guaranteed minimum accumulation benefit or guaranteed minimum income benefit. We describe this reduction under each feature's description. Where we reflect the reduction as a percentage of contract value withdrawn, the benefit may be reduced by more than the actual dollar amount of the withdrawal. The reduction will be greater when the value of your contract investment choices is lower due to market performance or other variables.

If you withdraw your full contract value, the contract terminates and does not provide a death benefit, guaranteed minimum accumulation benefit or guaranteed minimum income benefit.

Unless you instruct us otherwise, we will take any partial withdrawal proportionally from your contract value in the funds, The Fixed Account, and Long-Term Guarantee Fixed Accounts. Currently, the minimum withdrawal amount must be $100 or the entire value in a fund, The Fixed Account, or a Long-Term Guarantee Fixed Account, if less. However, we reserve the right to increase the minimum withdrawal amount to $250.

After you make a partial withdrawal we require you to keep at least $2,000 in your contract. If your partial withdrawal is a required minimum distribution we do not require a minimum contract value following that partial withdrawal. Withdrawals may be subject to the assessment of a contingent deferred sales charge. Unless the withdrawal is during the window period, any withdrawal of contract value from a Long-Term Guarantee Fixed Account will also be subject to an interest rate factor adjustment.

We calculate partial withdrawals from The Fixed Account and Long-Term Guarantee Fixed Accounts on a first-in, first-out basis. In other words, we withdraw amounts attributed to the oldest purchase payments first; then we withdraw amounts attributed to the next oldest purchase payment; and so on.

When you make a total withdrawal you will receive the value of your contract:

- less any contingent deferred sales charge, if applicable;
- less any applicable premium tax;
- less any interest rate factor adjustment, if applicable;
- less any contract maintenance charge, if applicable, and
- less any purchase payments we credited to your contract that have not cleared the bank, until they clear the bank.

Requests in Writing

To request a withdrawal in writing, you must submit, in good order, to our Service Center, our partial surrender or full surrender form. If your withdrawal involves an exchange or transfer of assets to another financial institution, we also require a "letter of acceptance" from the financial institution.

Requests by Other Means

You may request certain partial and full withdrawals by other means we authorize such as e-mail, telephone, or fax. Contact our Service Center for details.

Withdrawal Effective Date

For written requests, your withdrawal is effective on the business day we receive, in good order, at our Service Center:

- our partial surrender or full surrender form; and
- if applicable, a "letter of acceptance."

If we receive this item(s) at our Service Center on a non-business day or after our business day closes, your withdrawal request will be effective on the next business day. For e-mail, telephone or fax requests, your withdrawal is effective on the business day we receive your request in good order, provided it is received prior to the close of business. For requests received after the close of the business day, your withdrawal will be effective on the next business day.

Delivery of Withdrawal Amount

We will pay any withdrawal amount within seven days of the withdrawal effective date, unless we are required to suspend or postpone withdrawal payments. See "Other Information – Suspension of Payments or Transfers."

We will pay any full or partial withdrawal to the qualified plan trustee or plan administrator, if you purchased your contract under a tax-qualified retirement plan, a non-qualified deferred compensation plan or a deferred compensation plan for a tax-exempt organization. The only exceptions are for required minimum distribution payments and for withdrawals from individually-owned qualified contracts.

Systematic Withdrawal Program

For detailed rules and restrictions pertaining to this program and instructions for electing the program contact our Service Center.

The Systematic Withdrawal Program (SWP) allows you to set up automatic periodic withdrawals from your contract value. We do not charge you for participation in the SWP. We will take any withdrawal under this program proportionally from your contract value in your selected investment choices. You may not participate in the SWP if you elected the Nursing Home Waiver Benefit and we are currently waiving the contingent deferred sales charge in accordance with that benefit.

Your SWP will end:

- if you withdraw your total contract value;
- if the next systematic withdrawal will lower your contract value below the minimum contract value we allow following a partial withdrawal, unless your withdrawal is a minimum required distribution;
- if we receive, in good order, a notification of the owner's death;
- if we receive, in good order, a notification of the annuitant's death if the owner is a non-natural person;
- if we process the last withdrawal you selected;
- if your value in a selected fund or The Fixed Account is insufficient to complete the withdrawal;
- if you apply your full contract value to an annuity option; or
- if you give us, in good order, a written request or request over the telephone to terminate your program any time before or on the next withdrawal date. If your contract is a Beneficiary IRA, your SWP cannot be terminated.

Transfers Between Transitions Packages I, II and III

If you elect Transitions Package I, II or III, you may transfer among those three packages beginning on your second contract anniversary and on any contract anniversary thereafter. However, you cannot transfer from Transitions Package I, II or III to the Transitions Custom Plan. If you elect the Transitions Custom Plan, you cannot transfer to Transitions Package I, II or III.

If you elect Transitions Package I, II or III, you may transfer among those three Transition Packages subject to the following rules:

- You will not be able to move between the Transition Packages until your second contract anniversary and then only on any contract anniversary thereafter. Your first contract anniversary is one calendar year from the date we issued your contract.
- In order to transfer between Transitions Packages, we must receive your written request for the transfer in good order at our Service Center at least seven calendar days prior to your contract anniversary.
- The effective date of your newly elected Transitions Package is the contract anniversary at the end of the seven calendar day election period.

- Your policy must meet the minimum contract values ($15,000 for non-qualified contracts and $2,000 for qualified contracts).
- Only one Transitions Package may be in effect at any time.
- We will issue you a new contract schedule upon your transfer.

Expenses

This section describes the charges and deductions we make under the contract 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. These charges and deductions reduce the return on your investment in the contract. These charges and expenses are:

Insurance Charges

Each business day we deduct our insurance charges from the assets of the separate account. We do this as part of our calculation of the value of the accumulation units and the annuity units. The insurance charge has two parts:

- the mortality and expense risk charge; and
- the administrative charge.

Mortality and Expense Risk Charge

This charge is equal, on an annualized basis, to the following percentages of the daily value of the assets invested in each fund, after fund expenses are deducted:

	Transitions Package Plan		
Transitions Custom Plan	***Transitions Package I***	***Transitions Package II***	***Transitions Package III***
0.80%	0.80%	1.15%	1.40%

This charge is for:

- the mortality risk associated with the insurance benefits provided, including our obligation to make annuity payments after the annuity date regardless of how long all annuitants live, the death benefits, and the guarantee of rates used to determine your annuity payments during the income phase; and
- the expense risk that the current charges will be insufficient to cover the actual cost of administering the contract.

If the current mortality and expense risk charge is not sufficient to cover the mortality and expense risk, we will bear the loss. If this is the case, we may raise the mortality and expense risk charge in order to restore profitability. We may increase this charge at any time while you own the contract, but the charge will never exceed 1.50% for the Transitions Custom Plan or Transitions Packages I, II or III. If the amount of the charge is more than sufficient to cover the mortality and expense risk, 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 contract.

Administrative Charge

This charge is equal, on an annualized basis, to the following percentages of the daily value of the assets invested in each fund, after fund expenses are deducted:

	Transitions Package Plan		
Transitions Custom Plan	***Transitions Package I***	***Transitions Package II***	***Transitions Package III***
0.15%	0.15%	0.15%	0.15%

We assess this charge, together with the annual contract maintenance charge, to reimburse us for all the expenses associated with the administration of the contract and the separate account. Some of these expenses are: preparation of the contract, confirmations, annual reports and statements, maintenance of contract records, personnel costs, legal and accounting fees, filing fees, and computer and systems costs. We may increase this charge at any time while you own the contract, but the charge will never exceed 0.25% for the Transitions Custom Plan or Transitions Packages I, II or III.

Annual Contract Maintenance Charge

At the end of each contract year, we deduct $40 from your contract as an annual contract maintenance charge. We assess this charge, together with the administrative charge, to reimburse us for all the expenses associated with the administration of the contract and the separate account. Some of these expenses are: preparation of the contract, confirmations, annual reports and statements, maintenance of contract records, personnel costs, legal and accounting fees, filing fees, and computer and systems costs. We may increase this charge at any time while you own the contract, but the charge will never exceed $60. If we increase this charge, we will give you 90 days prior notice. Currently, we will not deduct this charge if, when we are to make the deduction, the value of your contract is $100,000 or more. Subject to state regulations, we will deduct the annual contract maintenance charge proportionately from the investment choices you have selected. The amount of this charge may vary by state.

If you make a total withdrawal of your contract value, and your contract value is less than $100,000, we will deduct the full annual contract maintenance charge. If you apply your entire contract value to an annuity option on a date other than your contract anniversary and your contract value is less than $100,000, we will deduct a pro rata portion of the charge.

Contingent Deferred Sales Charge

We do not deduct a sales charge when we receive a purchase payment. However, we may assess a contingent deferred sales charge on any amount you withdraw that exceeds the free withdrawal amount and the amount you apply to Annuity Option E. We use this charge to cover certain expenses relating to the sale of the contract.

If we assess a contingent deferred sales charge, we will deduct it from the amount that you withdraw or apply to Annuity Option E.

The amount of the charge depends on:

- the amount you withdraw or apply to Annuity Option E; and
- the length of time between when we issued your contract and when you make a withdrawal or apply an amount to Annuity Option E.

The contingent deferred sales charge for Transitions Packages I, II and III is assessed as follows:

Contract Year When Withdrawal is Made or Contract Value is Applied to Annuity Option E	**Charge** (as a percentage of the amount you withdraw or apply to Annuity Option E)
1st Year	7%
2nd Year	7%
3rd Year	7%
4th Year	6%
5th Year	5%
6th Year	4%
7th Year	3%
8th Year and thereafter	0%

For the Transitions Custom Plan contract you may elect the standard seven year schedule shown above or you may elect one of the following:

(1) the five year contingent deferred sales charge schedule (for an additional charge);

(2) the nine year contingent deferred sales charge schedule (credit provided if elected).

See “Additional Transitions Custom Plan Contract Features” for details about the five year and nine year schedules.

In addition to the free withdrawals described later in this section, we will not impose a contingent deferred sales charge under the following circumstances.

- Upon payment of the death benefit.

- On amounts withdrawn as required minimum distributions (RMDs), to the extent they exceed the free withdrawal amount. In order to qualify for this exception, you must be participating in a systematic withdrawal program established for the payment of RMDs, under which the annual RMD is calculated by us, based solely on the fair market value of the contract (RMD program). If you choose to take withdrawals to satisfy your RMD for the contract outside of our RMD program, or if you choose to take withdrawals from the contract to satisfy your RMD(s) for other qualified assets, contingent deferred sales charge may apply.
- Upon application of the contract value to any Single Life or Joint and Survivor Life Annuity Option, or to a Period Certain Annuity under Annuity Option E of at least ten years.
- If you redeem excess contributions from a plan qualifying for special income tax treatment. These types of plans are referred to as qualified plans, including individual retirement annuities (IRAs). We look to the IRC for the definition and description of excess contributions.
- When the contract is exchanged for another variable annuity contract issued by us or one of our affiliated insurance companies, of the type and class which we determine is eligible for such an exchange. A contingent deferred sales charge may apply to the contract received in the exchange. A reduced contingent deferred sales charge schedule may apply under the contract if another variable annuity contract issued by us or one of our affiliated insurance companies is exchanged for the contract. Exchange programs may not be available in all states. We have the right to modify, suspend or terminate any exchange program any time without prior notification. If you want more information about our current exchange programs, contact your registered representative or us at our Service Center.
- If you are eligible for waiver of the contingent deferred sales charge due to your election of the Nursing Home Waiver Benefit described in "Additional Transitions Custom Plan Contract Features."
- If you apply your entire contract value to purchase a single premium immediate life annuity or a fixed deferred annuity issued by us or one of our affiliates.
- On any withdrawals made or amounts applied to an annuity option when you reach the latest permitted annuity date for your contract.

In most states, you may elect a different contingent deferred sales charge schedule under the Transitions Custom Plan. We will provide a credit to your contract or assess an additional charge to your contract depending upon the contingent deferred sales charge feature you elect. Please refer to "Additional Transitions Custom Plan Contract Features" for more information.

Free Withdrawals

The following free withdrawal provisions are available:

Transitions Custom Plan

In your first contract year, you may withdraw, without incurring a contingent deferred sales charge, up to 10% of your purchase payments reduced by any free withdrawal amount previously taken during the contract year. Beginning in the second contract year, you may withdraw up to 10% of your contract value as of the end of the previous contract year, plus 10% of any purchase payment received in the current contract year, reduced by any free withdrawal amount previously taken during the current contract year.

You may take the 10% in multiple withdrawals each contract year.

In most states, there are other free withdrawal features available under the Transitions Custom Plan for an additional charge. Please refer to "Additional Transitions Custom Plan Contract Features" for more information.

Transitions Packages I and II

In your first contract year, you may withdraw, without incurring a contingent deferred sales charge, up to 10% of your purchase payments reduced by any free withdrawal amount previously taken during the contract year. Beginning in the second contract year, you may withdraw up to 10% of your contract value as of the end of the previous contract year, plus 10% of any purchase payment received in the current contract year, reduced by any free withdrawal amount previously taken during the current contract year.

You may take the 10% in multiple withdrawals each contract year.

Transitions Package III

In your first contract year, you may withdraw, without incurring a contingent deferred sales charge, up to 15% of your purchase payments reduced by any free withdrawal amount previously taken during the contract year. Beginning in the second contract year, you may withdraw up to 15% of your contract value as of the end of the previous contract year, plus 15% of any purchase payment received in the current contract year, reduced by any free withdrawal amount previously taken during the current contract year.

For partial withdrawals only, you may carry forward any unused portion of the free withdrawal amount into successive years, up to a maximum of 30% of your previous contract year-end contract value plus any purchase payment received in the current contract year. There will be no allowance for unused free withdrawal amounts accumulated while you participated in Transitions Package I or II.

You may take the 15% in multiple withdrawals each contract year.

Premium Taxes

Some states and other governmental entities charge premium taxes or similar taxes. We are responsible for the payment of these taxes and will make a deduction from your contract value for them, or we may adjust the annuity rates for premium tax assessed. Some of these taxes are due when your contract is issued, others are due when annuity payments begin. Currently we do not charge you for these taxes until you begin receiving annuity payments or you make a total withdrawal. We may discontinue this practice and assess the charge when the tax is due. Premium taxes generally range from 0% to 3.5%, depending on the state.

Transfer Fee

During the accumulation phase we do not assess a transfer fee. However, we reserve the right to allow 12 free transfers per calendar year and charge an amount of $20 per transfer in excess of 12.

During the income phase, we allow six transfers each calendar year and they are not subject to a transfer fee.

Income Taxes

We will deduct from the contract any income taxes that we incur because of the operation of the separate account. At the present time, we are not making any such deductions. We will deduct any withholding taxes required by law.

Fund Expenses

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 may 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 contract. Please see each fund's prospectus for more information regarding these expenses.

Credit Features

In most states, the contract provides for three credit features. We will pay the case size credit from the expense efficiencies that result from contracts with higher contract values. We will pay the electronic document delivery credit from the expense savings that result from the delivery of documents related to the contract in electronic format rather than paper format. We will pay the persistency credit out of increased revenues we receive from contract charges assessed against contracts that are in force for longer periods of time. We provide these credit amounts in lieu of reducing expenses directly.

Except for the Electronic Document Delivery Credit, we calculate all credits based on your contract value as of the end of the contract year. We will apply credits on your immediately following contract anniversary proportionally to the funds that you are invested in as of the date we calculate the credit. If you are not invested in any of the funds when we apply the credit, we will automatically apply the credit to a money market fund.

These credit amounts may be subject to the assessment of a contingent deferred sales charge upon withdrawal or if you elect to receive an annuity payment.

Case Size Credit

We will provide a credit under the Transitions Custom Plan and Transitions Packages I, II and III to your contract if it exceeds a certain average contract value as of the end of each contract year. We will determine the average contract value for each contract by taking the average of your contract value at the end of each contract year quarter during the current contract year.

We will provide a 0.05% credit to your contract on your contract anniversary if your average contract value is at least $250,000 and less than $1 million as of the end of the immediately preceding contract year.

We will provide a 0.10% credit to your contract on your contract anniversary if your average contract value is at least $1 million as of the end of the immediately preceding contract year.

Electronic Document Delivery Credit

We will provide an annual $24 credit under the Transitions Custom Plan and Transitions Packages I, II and III to your contract on your contract anniversary in each contract year if you are participating in our e-Documents Program as of your contract anniversary. Participation in our e-Documents Program will provide you with documents related to your contract in electronic format rather than paper format. Examples of these documents include, but are not limited to, the prospectus, prospectus supplements, and annual and semi-annual reports of the underlying funds. For instructions on how to participate, call our Service Center. You may discontinue your participation in our e-Documents Program at any time if you wish to receive these documents in paper format rather than electronic format. We reserve the right to terminate this credit feature at any time.

Persistency Credit

At the end of each contract year following the expiration of the contingent deferred sales charge period associated with your contract, we will calculate a credit in the amount of 0.05% of your contract value and apply that credit to your contract on your immediately following contract anniversary date. This credit is available only under the Transitions Custom Plan. We may reduce this credit at any time while you own the contract, but the credit will never be less than 0.02%.

The Income Phase

Overview

If you want to receive regular income from your contract, you may elect to apply all or part of your contract value to one of the annuity options described in this section and receive fixed and/or variable annuity payments. We may base annuity payments on the age and sex of the annuitant(s) under all options except Annuity Option E. We may require proof of age and sex before annuity payments begin.

If your contract value is less than $2,000 on the annuity date, we reserve the right to pay you a lump sum rather than a series of annuity payments. If any annuity payment is less than $100 ($20 for contracts issued in New York), we reserve the right to change the payment basis to equivalent less frequent payments.

Applying Part of Your Contract Value to an Annuity Option

You may elect to apply part of the contract value from your qualified or non-qualified contract to an annuity option instead of your full contract value. We will treat the amount applied as a withdrawal of contract value that may qualify for favorable tax treatment under federal law. See "Taxes – Partial Annuitization." You must specify the portion of your contract value to be applied to an annuity option, and if it is not the full contract value, the amount must be at least $10,000.

We currently do not restrict the number of times in a contract year that you can elect to apply part of your contract value to an annuity option. However, we reserve the right to limit the number of times that you can elect to apply part of your contract value to an annuity option to once a contract year.

If you choose to apply part of your contract value to an annuity option, there may be adverse tax consequences. For additional information, see "Taxes – Partial Annuitization." **Before you apply part of your contract value to an annuity option, you should consult a qualified tax professional and discuss the tax implications associated with such a transaction.** We do not provide tax advice or recommendations.

Annuity Payment Start Date

You can choose the day, month and year in which annuity payments begin. This date must be the 1st through 28th day of the month. We call that date the annuity date. This date cannot be earlier than five years (13 months for contracts issued in New York) after you purchase your contract. You may choose your annuity date when you purchase your contract. After you purchase your contract you can request an earlier annuity date by notifying us in writing at least 30 days before the annuity date. You can request that we delay your annuity date by notifying us in writing or by telephone any time before or on the annuity date.

Annuity payments must begin by the earlier of:

- the 100th birthday of the annuitant or oldest joint annuitant (90th birthday for contracts issued in New York);
- your 100th birthday if you are not the annuitant or the 100th birthday of the oldest joint owner (90th birthday for contracts issued in New York); or
- the latest date permitted under state law.

If the annuity date is required to be before a 100th birthday, upon written request we will defer the annuity date up to the 100th birthday.

Electing an Annuity Option

On the annuity date, we must have written instructions in good order at our Service Center regarding your annuity option choice including whether you want fixed and/or variable payments.

If on the annuity date we do not have your instructions, we will assume you elected Option B with ten years of payments guaranteed. We will use contract value in the funds and the DCA Fixed Account, if any, to provide a variable portion of each annuity payment and contract value in The Fixed Account and the Long-Term Guarantee Fixed Account, if any, to provide a fixed portion of each annuity payment. If your contract is a qualified contract, we may default you to a different annuity option in order to comply with requirements applicable to qualified plans.

Required Minimum Distributions for Tax-Qualified Contracts

In order to avoid adverse tax consequences, you should begin to take distributions from your contract no later than the beginning date required by the IRC. These distributions can be withdrawals or annuity payments. The distributions should be at least equal to the minimum amount required by the IRC or paid through an annuity option that complies with the required minimum distribution rules of IRC Section 401(a)(9). If your contract is an individual retirement annuity, the required beginning date is no later than April 1 of the calendar year: (1) after you reach age 72, if you were not yet age 70½ on December 31, 2019 or (2) after you reach age 70½, if you had reached age 70½ on or before December 31, 2019. For qualified plans, if you are still working for the sponsor when you reach the specified required minimum distribution age, you may defer distributions until the year in which you retire. The option of deferring to retirement is not available if you are a 5% or greater owner of the employer sponsoring your qualified plan.

Fixed Annuity Payments

If you choose fixed payments, the payment amount will not vary. The payment amount will depend upon the following:

- the value of your contract on the annuity date or your Guaranteed Minimum Income Benefit value on the annuity date, if applicable;
- the annuity option you elect;
- the age and sex of the annuitant or joint annuitants, if applicable;
- the minimum guaranteed payout rates associated with your contract;
- the deduction of a contingent deferred sales charge (may be deducted under Annuity Option E only);
- the deduction of an interest rate factor adjustment, if applicable; and
- the deduction of premium taxes, if applicable.

In most states, if the single premium immediate annuity rates offered by MassMutual on the annuity date are more favorable than the minimum guaranteed rates listed in your contract, those rates will be used, unless you are exercising the Guaranteed Minimum Income Benefit.

Variable Annuity Payments

You may not elect a variable annuity payment if you are exercising the Guaranteed Minimum Income Benefit.

If you choose variable payments, the payment amount will vary with the investment performance of the funds you elect. The first payment amount will depend on the following:

- the value of your contract on the annuity date;
- the annuity option you elect;
- the age and sex of the annuitant or joint annuitants, if applicable;
- the minimum guaranteed payout rates associated with your contract;
- an assumed investment rate (AIR) of 4% per year;
- the deduction of a contingent deferred sales charge (may be deducted under Annuity Option E only);
- the deduction of an interest rate factor adjustment, if applicable; and
- the deduction of premium taxes, if applicable.

Future variable payments will depend on the performance of the funds you elected. If the actual performance on an annualized basis exceeds the 4% assumed investment rate plus the deductions for expenses, your annuity payments will increase. Similarly, if the actual rate is less than 4% annualized plus the amount of the deductions, your annuity payments will decrease.

Annuity Unit Values

In order to keep track of the value of your variable annuity payment, we use a unit of measure called an annuity unit. The value of your annuity units will fluctuate to reflect the investment performance of the funds you elected. We calculate the number of your annuity units at the beginning of the income phase. During the income phase, the number of annuity units will not change unless you make a transfer; make a withdrawal as permitted under certain annuity options; or you elect an annuity option with reduced payments to the survivor and those payments to the survivor commence. The insurance charge applied as part of the calculation of the annuity unit value will be the insurance charge assessed at the time you apply all or part of your contract value to an annuity option. The SAI contains more information on how annuity payments and annuity unit values are calculated.

Annuity Options

The available annuity options are listed in this section in the Annuity Options table. We may consent to other plans of payment in addition to those listed. After annuity payments begin, you cannot change the annuity option, the frequency of annuity payments, or make withdrawals, except as described under Annuity Option E.

Limitations on Annuity Options

If you purchased the contract as a tax-qualified contract, the required minimum distribution rules that apply to annuitized contracts during your lifetime may impose restrictions on which annuity option you may elect. In addition, in order to ensure that the contract will comply with the required minimum distribution requirements that apply upon your death, you may not elect an annuity option with a period certain guarantee of longer than ten years, and you may not elect a joint and survivor annuity option if the joint annuitant is more than ten years younger than you, unless otherwise required by law. Furthermore, if your contract is issued under an ERISA plan, and you are married when your contract enters the income phase, your ability to elect certain annuity options may be limited and/or require spousal consent.

Annuity Options

We may consent to other plans of payment in addition to those listed, including a Joint and Last Survivor Annuity with Period Certain.

Lifetime Contingent Options (variable and/or fixed payments)				
	Annuity Option A Life Income	***Annuity Option B Life Income with Period Certain***	***Annuity Option C Joint and Last Survivor Annuity***	***Annuity Option D Joint and 2/3 Survivor Annuity***
Number of Annuitants:	One	One	Two	Two
Length of Payment Period:	For as long as the annuitant lives.	For a guaranteed period of either 5, 10 or 20 years or as long as the annuitant lives, whichever is longer.	For as long as either annuitant lives.	For as long as either annuitant lives.
Annuity Payments After Death:	None. All payments end upon the annuitant's death.	When the annuitant dies, if there are remaining guaranteed payments, the beneficiary may elect to continue receiving remaining guaranteed payments or the beneficiary may elect a lump sum payment equal to the commuted value of the remaining guaranteed annuity payments. For qualified contracts, the beneficiary(ies) may be required to receive the commuted value of all or a portion of any remaining annuity payments in a lump sum, in order to comply with required minimum distribution requirements that apply upon the death of the owner/annuitant.	100% of the payment will continue during the lifetime of the surviving annuitant. No payments will continue after the death of both annuitants. For qualified contracts, upon the death of the owner/annuitant while the joint annuitant is still living, if the joint annuitant is not an "eligible designated beneficiary" as defined in IRC Section 401(a)(9), annuity payments may only continue through the end of the year that contains the 10th anniversary of death.	Payments will continue during the lifetime of the surviving annuitant and will be computed on the basis of two-thirds of the annuity payment (or units) in effect during the joint lifetime. No payments will continue after the death of both annuitants. For qualified contracts, upon the death of the owner/annuitant while the joint annuitant is still living, if the joint annuitant is not an "eligible designated beneficiary" as defined in IRC Section 401(a)(9), annuity payments may only continue through the end of the year that contains the 10th anniversary of death.

Non-Lifetime Contingent Options (variable and/or fixed payments)	
	Annuity Option E Period Certain Annuity
Number of Annuitants:	One

Non-Lifetime Contingent Options (variable and/or fixed payments)	
	Annuity Option E ***Period Certain Annuity***
Length of Payment Period:	For a specified period no less than five years and no greater than 30 years.
Withdrawal Option/ Switch Annuity Option:	If, after you begin receiving payments, you would like to receive all or part of the commuted value of the remaining guaranteed payments under this annuity option at any time, you may elect to receive it in a lump sum or have it applied to another annuity option. If you so elect, your future payments will be adjusted accordingly.
Contingent Deferred Sales Charge:	In most states, we will deduct a contingent deferred sales charge if you apply all or a part of your contract value to this option and the period certain is less than ten years. If it is permitted in your state, but we do not deduct a contingent deferred sales charge at that time, we will deduct a contingent deferred sales charge if you subsequently request a commuted lump sum payment to yourself or a commuted value to apply to another annuity option.
Annuity Payments After Death:	When the annuitant dies, if there are remaining guaranteed payments, the beneficiary may elect to continue receiving remaining guaranteed payments or the beneficiary may elect a lump sum payment equal to the commuted value of the remaining guaranteed annuity payments. For qualified contracts, the beneficiary(ies) may be required to receive the commuted value of all or a portion of any remaining annuity payments in a lump sum, in order to comply with required minimum distribution requirements that apply upon the death of the owner/annuitant. We will not deduct a contingent deferred sales charge.

Death Benefit

Death of Contract Owner During the Accumulation Phase

If you, or any joint owner, die during the accumulation phase, we will pay a death benefit to the primary beneficiary. If any joint owner dies, we will treat the surviving joint owner as the primary beneficiary and treat any other beneficiary designation, on record at the time of death, as a contingent beneficiary, unless both joint owners have submitted a written request to our Service Center, in good order, requesting otherwise.

Your beneficiary may request that the death benefit be paid under one of the death benefit options. If your contract is a non-qualified contract or is held as a traditional IRA (including SEP IRAs) or Roth IRA and your surviving spouse is the sole primary beneficiary, he or she may elect to become the owner of the contract at the death benefit amount payable. See “Death Benefit – Death Benefit Payment Options During the Accumulation Phase.”

Death Benefit During the Accumulation Phase

The death benefit depends upon the death benefit feature in effect at the time of your death and the age of the oldest joint owner (or the annuitant’s death and oldest annuitant’s age, if the owner is a non-natural person).

If you are age 80 or beyond when you elect a death benefit feature or transfer between Transition Packages, the only death benefit features that you may elect are the basic death benefit and the basic death benefit with annual ratchet feature.

If your death benefit amount is greater than your contract value at the time you transfer between the Transitions Packages or change death benefit features under the Transitions Custom Plan, the change in death benefit features may result in a decrease in your death benefit amount. Please contact your registered representative for more information on the impact of changing death benefit features after we issue your contract.

Adjusted for Any Withdrawals or Less Any Withdrawals

In this prospectus we describe the formulas we use to determine death benefit amounts. In some formulas we use the language “adjusted for any withdrawals” and in other formulas we use the language “less any withdrawals.” These phrases have different meanings.

Adjusted for Any Withdrawals

If you take a withdrawal, we adjust your death benefit by using the percentage of contract value withdrawn to lower the death benefit by the same percentage. We use the phrase "adjusted for any withdrawals" to describe this treatment of withdrawals within our formulas. Because this adjustment uses the percent of contract value withdrawn, the death benefit may be reduced by more than the actual dollar amount of the withdrawal. The reduction will be greater when the value of your contract investment choices is lower due to market performance or other variables.

Less Any Withdrawals

If you take a withdrawal, we lower your death benefit by subtracting the dollar amount of the withdrawal. We use the phrase "less any withdrawals" to describe this treatment of withdrawals within our formulas.

Transitions Custom Plan

There are a number of death benefit features available under the Transitions Custom Plan. However, certain death benefit features may not be available in all states.

You may elect only one death benefit feature at a time. If you do not elect a death benefit feature when we issue your contract, the death benefit feature under your contract will be the basic death benefit. We do not assess an additional charge for the basic death benefit. However, we will provide your contract with a credit or assess an additional charge to your contract if you elect one of the other death benefit features. You may add or terminate a death benefit feature on any contract anniversary as long as we receive, in good order, written notice of your intention to do so at our Service Center at least seven calendar days prior to your contract anniversary date. Please refer to "Additional Transitions Custom Plan Contract Features" for more information.

Basic Death Benefit

The death benefit paid will be the amount calculated (and adjusted for any applicable charges) as of the business day we receive proof of death and election of the payment method in good order at our Service Center. From the time the death benefit is determined until complete distribution is made, any amount in a sub-account will be subject to investment risk. As a result, the death benefit amount may increase or decrease over time. The risk is borne by the beneficiary(ies). Prior to you reaching age 80, the death benefit is the greater of:

- your contract value; or
- your purchase payments, less any withdrawals and any applicable charges.

For contracts issued on or after October 1, 2003, subject to state approval and implementation, the words "less any withdrawals" are replaced with the words "adjusted for any withdrawals." See "Death Benefit – Adjusted for Any Withdrawals or Less Any Withdrawals."

At age 80 and beyond, the death benefit is your contract value as of the business day we receive proof of death and election of the payment method in good order at our Service Center.

If there are joint owners of the contract, we will use the age of the oldest joint owner to determine the death benefit amount. If the contract is owned by a non-natural person, we will use the age of the annuitant to determine the death benefit amount.

We consider requests to apply part of your contract value to an annuity option as a withdrawal for purposes of calculating the death benefit amount.

References to Age

Age is as of the nearest birthday. For example, age 80 is generally the period of time between age 79 years, 6 months and 1 day and age 80 and 6 months. See "Age."

Transitions Package I

The death benefit feature available under Transitions Package I is the basic death benefit.

Basic Death Benefit

The death benefit paid will be the amount calculated (and adjusted for any applicable charges) as of the business day we receive proof of death and election of the payment method in good order at our Service Center. From the time the death benefit is determined until complete distribution is made, any amount in a sub-account will be subject to investment risk. As a result, the death benefit amount may increase or decrease over time. The risk is borne by the beneficiary(ies). Prior to you reaching age 80, the death benefit is the greater of:

- your contract value; or
- your purchase payments, less any withdrawals and any applicable charges.

For contracts issued on or after October 1, 2003, subject to state approval and implementation, the words “less any withdrawals” are replaced with the words “adjusted for any withdrawals.” See “Death Benefit – Adjusted for Any Withdrawals or Less Any Withdrawals.”

At age 80 and beyond, the death benefit is your contract value as of the business day we receive proof of death in good order at our Service Center and election of the payment method.

If there are joint owners of the contract, we will use the age of the oldest joint owner to determine the death benefit amount. If the contract is owned by a non-natural person, we will use the age of the annuitant to determine the death benefit amount.

We consider requests to apply part of your contract value to an annuity option as a withdrawal for purposes of calculating the death benefit amount.

References to Age

Age is as of the nearest birthday. For example, age 80 is generally the period of time between age 79 years, 6 months and 1 day and age 80 and 6 months. See “Age.”

Transitions Package II

The death benefit feature available under Transitions Package II is the basic death benefit with 5% roll-up feature. In certain states, the death benefit feature available under Transitions Package II may be the basic death benefit with 3 year reset feature.

Basic Death Benefit with 5% Roll-up Feature

The death benefit paid will be the amount calculated (and adjusted for any applicable charges) as of the business day we receive proof of death and election of the payment method in good order at our Service Center. From the time the death benefit is determined until complete distribution is made, any amount in a sub-account will be subject to investment risk. As a result, the death benefit amount may increase or decrease over time. The risk is borne by the beneficiary(ies). The death benefit is the greatest of:

- your contract value; or
- the roll-up feature value; or
- your purchase payments less any withdrawals and applicable charges.

For contracts issued on or after October 1, 2003, subject to state approval and implementation, the words “less any withdrawals” are replaced with the words “adjusted for any withdrawals.” See “Death Benefit – Adjusted for Any Withdrawals or Less Any Withdrawals.”

We recalculate the roll-up feature value when we receive a purchase payment from you or if you make a withdrawal as follows:

- The roll-up feature value is equal to the accumulation at interest of all purchase payments adjusted for any withdrawals and applicable charges, but not more than twice the sum of purchase payments adjusted for any withdrawals and applicable charges. We will use an effective annual rate of interest of 5% in the following calculations for any period prior to you reaching age 80 and 0% thereafter.
- When a purchase payment is made, the roll-up feature value is equal to the most recently calculated roll-up feature value accumulated to the date of the purchase payment plus the purchase payment.

- When a withdrawal is taken, the roll-up feature value is equal to the most recently calculated roll-up feature value accumulated to the date of the withdrawal reduced by an adjustment for withdrawals. The adjustment for withdrawals is equal to:
  - the withdrawal amount, including any applicable charges, divided by your contract value immediately prior to the withdrawal;
  - with the result multiplied by the most recently calculated roll-up feature value accumulated to the date of withdrawal.
- On any other date, the roll-up feature value is equal to the most recently calculated roll-up feature accumulated to that date.

If you elect Transitions Package II when we issue your contract, the initial roll-up feature value will be equal to your initial purchase payment. If you transfer to Transitions Package II from Transitions Package III, we will calculate your initial roll-up feature value as if you elected Transitions Package II when we issued your previous Transitions Package. If you transfer to Transitions Package II from Transitions Package I, your contract value on the effective date of the transfer will act as your initial roll-up feature value, subject to the cap of two times the total of all purchase payments adjusted for any withdrawals.

If you transfer from Transitions Package II to Transitions Package I or III, the roll-up feature will not be in effect and the death benefit will be reset to the death benefit available under your new Transitions Package.

If there are joint owners of the contract, we will use the age of the oldest joint owner to determine the death benefit amount. If the contract is owned by a non-natural person, we will use the age of the annuitant to determine the death benefit amount.

We consider requests to apply part of your contract value to an annuity option as a withdrawal for purposes of calculating the death benefit amount.

References to Age

Age is as of the nearest birthday. For example, age 80 is generally the period of time between age 79 years, 6 months and 1 day and age 80 and 6 months. See “Age.”

Basic Death Benefit with 3 Year Reset Feature

The death benefit paid will be the amount calculated (and adjusted for any applicable charges) as of the business day we receive proof of death and election of the payment method in good order at our Service Center. From the time the death benefit is determined until complete distribution is made, any amount in a sub-account will be subject to investment risk. As a result, the death benefit amount may increase or decrease over time. The risk is borne by the beneficiary(ies). The death benefit will be the greatest of:

- your contract value; or
- the 3 year reset feature value; or
- your purchase payments, less any withdrawals and applicable charges.

For contracts issued on or after October 1, 2003, subject to state approval and implementation, the words “less any withdrawals” are replaced with the words “adjusted for any withdrawals.” See “Death Benefit – Adjusted for Any Withdrawals or Less Any Withdrawals.”

Prior to you reaching age 80, we will recalculate the 3 year reset feature value on each 3 year contract anniversary following the date your election of this death benefit is effective or when we receive your purchase payment or you take a withdrawal as follows:

- On each 3 year contract anniversary date following the date your election of this death benefit is effective, the 3 year reset feature value is equal to your contract value at that time. This value may be higher or lower than the prior 3 year reset feature value.
- When a purchase payment is made, the 3 year reset feature value is equal to the most recently calculated 3 year reset feature value plus the purchase payment.
- When a withdrawal is taken, the 3 year reset feature value is equal to the most recently calculated 3 year reset feature value, reduced by an adjustment for withdrawals. The adjustment for withdrawals is equal to:
  - the withdrawal amount, including any applicable charges, divided by your contract value immediately prior to the withdrawal;
  - with the result multiplied by the most recently calculated 3 year reset feature value.

At age 80 and beyond, the 3 year reset feature value is the 3 year reset feature value at age 80, adjusted for subsequent purchase payments and withdrawals pursuant to the 3 year reset feature value calculation described in 2 and 3 above.

If you elect Transitions Package II when we issue your contract, the initial 3 year reset feature value will be equal to your initial purchase payment. If you transfer to Transitions Package II from Transitions Package I or III after we issue your contract, the initial 3 year reset feature value will be equal to your purchase payments less any withdrawals and applicable charges. If you transfer from Transitions Package II to Transitions Package I or III, the 3 year reset feature will not be in effect and the death benefit will be reset to the death benefit available under your new Transitions Package.

If there are joint owners of the contract, we will use the age of the oldest joint owner to determine the death benefit amount. If the contract is owned by a non-natural person, we will use the age of the annuitant to determine the death benefit amount.

We consider requests to apply part of your contract value to an annuity option as a withdrawal for purposes of calculating the death benefit amount.

References to Age

Age is as of the nearest birthday. For example, age 80 is generally the period of time between age 79 years, 6 months and 1 day and age 80 and 6 months. See "Age."

Transitions Package III

The death benefit feature available under Transitions Package III is the basic death benefit with annual ratchet feature. In addition, we will automatically add the earnings enhancement benefit to your basic death benefit with annual ratchet feature. If you elect Transitions Package III after age 80, the earnings enhancement benefit will have no value.

Basic Death Benefit with Annual Ratchet Feature

The death benefit paid will be the amount calculated (and adjusted for any applicable charges) as of the business day we receive proof of death and election of the payment method in good order at our Service Center. From the time the death benefit is determined until complete distribution is made, any amount in a sub-account will be subject to investment risk. As a result, the death benefit amount may increase or decrease over time. The risk is borne by the beneficiary(ies). The amount of the death benefit will be the greatest of:

- your contract value; or
- the highest anniversary value reduced by an adjustment for withdrawals and increased by any purchase payments; or
- the amount of purchase payments you have made to the contract less any withdrawals.

For contracts issued on or after October 1, 2003, subject to state approval and implementation, the words "less any withdrawals" are replaced with the words "adjusted for any withdrawals." See "Death Benefit – Adjusted for Any Withdrawals or Less Any Withdrawals."

The Highest Anniversary Value

If you elect Transitions Package III when we issue your contract, your initial highest anniversary value is equal to your initial purchase payment. After we issue your contract if you transfer to Transitions Package III then your initial highest anniversary value equals your contract value on the date the transfer to Transitions Package III is effective. If you transfer from Transitions Package III to Transitions Package I or II, the annual ratchet feature will not be in effect and the death benefit will be reset to the death benefit available under your new Transitions Package.

On each contract anniversary prior to age 80 the highest anniversary value will be recalculated and set to equal the greater of:

- the most recently calculated highest anniversary value; or
- your contract value on the date of the recalculation.

Age 80 refers to the oldest owner's age or, if the owner is a non-natural person, the oldest annuitant's age.

On dates other than the contract anniversary, we will recalculate the highest anniversary value each time you make a purchase payment or a withdrawal. We will increase it by any purchase payments and reduce it by an adjustment for any withdrawals.

At age 80 and above, the highest anniversary value will no longer change and will remain as last calculated except we will increase it if you make subsequent purchase payments and we will adjust it for any subsequent withdrawals. Age 80 refers to the oldest owner's age or, if the owner is a non-natural person, the oldest annuitant's age.

If you transfer from Transitions Package III to Transitions Package I or II, the basic death benefit with annual ratchet feature will not be in effect and the death benefit will be reset to the death benefit available under your new Transitions Package.

References to Age

Age is as of the nearest birthday. For example, age 80 is generally the period of time between age 79 years, 6 months and 1 day and age 80 and 6 months. See "Age."

Adjustment for Withdrawals

When we adjust purchase payments for subsequent withdrawals we look at the withdrawal amount, divide it by your contract value just prior to the withdrawal and then multiply that by the most recently adjusted purchase payments prior to the withdrawal.

When we adjust the highest anniversary value for subsequent withdrawals we look at the withdrawal amount, divide it by your contract value just prior to the withdrawal and then multiply that by the most recently calculated highest anniversary value.

We consider requests to apply part of your contract value to an annuity option as a withdrawal for purposes of calculating the death benefit amount.

Earnings Enhancement Benefit

Subject to state availability, the earnings enhancement benefit acts as a supplement to the basic death benefit with annual ratchet feature. If you elect Transitions Package III after you reach age 80, the earnings enhancement benefit will have no value.

The additional benefit amount is a percentage of your contract's earnings since you last elected Transitions Package III to the date we determine the death benefit amount. For the purposes of this benefit, we define earnings as the difference between:

- your contract value and
- your purchase payments less withdrawals

as of the date of your death.

We base the applicable percentage upon your age as of the date of your last election of Transitions Package III as outlined in the following table:

Ages	Percentage of Earnings
0 – 69	40%
70 – 72	25%
73 – 75	18%
76 – 78	11%
79 – 80	7%

If your age is less than 70 as of the date your election of Transitions Package III is effective, this benefit is subject to a maximum benefit amount of 100% of your purchase payments less withdrawals and any applicable charges. If your age is 70 or over as of the date your election of Transitions Package III is effective, this benefit is subject to a maximum of 40% of your purchase payments less withdrawals and any applicable charges.

If you transfer to Transitions Package III after we issue your contract, the purchase payment amount that is used in determining your benefit under Transitions Package III will be equal to the greater of your contract value or your purchase payments less any withdrawals as of the effective date of your transfer to Transitions Package III. For the purposes of this benefit, we will take any withdrawals from earnings first.

If you transfer from Transitions Package III to Transitions Package I or II, the Earnings Enhancement Benefit will not be in effect.

If there are joint owners of the contract, we will use the age of the oldest joint owner to determine the death benefit amount. If the contract is owned by a non-natural person, we will use the age of the annuitant to determine the death benefit amount.

We consider requests to apply part of your contract value to an annuity option as a withdrawal for purposes of calculating the death benefit amount.

References to Age

Age is as of the nearest birthday. For example, age 80 is generally the period of time between age 79 years, 6 months and 1 day and age 80 and 6 months. See "Age."

Death Benefit Payment Options During the Accumulation Phase

The availability of certain death benefit options may be limited for tax-qualified contracts in order to comply with the required minimum distribution rules.

For non-qualified contracts, a beneficiary must elect to receive the death benefit under one of the following options, in the event you die during the accumulation phase:

- **Option 1** – lump sum payment of the death benefit within five years of the date of death; or
- **Option 2** – payment of the death benefit under an annuity option over the lifetime of the beneficiary or over a period not extending beyond the life expectancy of the beneficiary with distribution beginning within one year of the date of your death or the death of any joint owner.

For qualified contracts, a beneficiary must elect to receive the death benefit under one of the following options, in the event that you die during the accumulation phase:

- **Option 1** – lump sum payment of the death benefit by the end of the calendar year that contains the tenth anniversary of your death; or
- **Option 2** – if the beneficiary is your surviving spouse, or is not more than ten years younger than you, payment of the death benefit under an annuity option over the lifetime of the beneficiary or over a period not extending beyond the life expectancy of the beneficiary, with distribution beginning by the end of the calendar following the year of your death.

Additional Option for a Spouse Who is the Sole Primary Beneficiary

A surviving spouse who is the sole primary beneficiary under a contract that is either non-qualified or is held as a traditional IRA (including SEP IRAs) or Roth IRA may elect option (1), option (2), or may elect to continue the contract. Generally, if the contract is continued then:

- the initial value will equal the death benefit amount;
- all applicable contract features and benefits will be in the surviving spouse's name; and
- the surviving spouse will exercise all of the contract owner's rights under the contract.

Exceptions are as follows:

- if at the time the owner purchased the contract the surviving spouse was over the maximum contract issue age, then the contract cannot be continued;
- if at the time the owner purchased the contract the surviving spouse was over the maximum allowable age for electing a certain feature, then the feature is not available for continuance, but the contract may be continued.

If the sole primary beneficiary is a domestic partner or civil union partner, as defined under applicable state laws, we will treat him or her as a spouse for this provision, and he or she may elect to continue the contract as described herein. However, a domestic partner or civil union partner cannot elect to continue the contract if it is a traditional IRA or Roth IRA. Since current federal tax law does not define a spouse to include a domestic partner or civil union partner, such domestic partner or civil union partner who elects to continue the contract must still meet the distribution requirements of IRC Section 72(s). In order to meet these requirements, the amount of any gain in the contract will become subject to income tax at the time the election to continue the contract is made.

The right to continue the contract by a surviving spouse, a domestic partner, or a civil union partner can only be exercised once while the contract is in effect.

See "Taxes – Civil Unions and Domestic Partnerships" if you are in a domestic partnership or civil union.

Lump Sum Payment

If a lump sum payment is requested, we will pay the amount within seven calendar days after we receive proof of death and election of the payment method in good order at our Service Center, unless we are required to suspend or delay payment.

Beneficiary IRA Election

Beneficiary, Inherited, Legacy or "Stretch" IRAs are all terms used to describe an IRA that is used exclusively to distribute death proceeds of an IRA or other qualified investment to the beneficiary over that beneficiary's life expectancy in order to meet the required minimum distribution (RMD) rules. Upon the contract owner's death under an IRA or other qualified contract, an "eligible designated beneficiary(ies)" may generally establish a Beneficiary IRA by either purchasing a new annuity contract or, in some circumstances, by electing the Beneficiary IRA payout option under the current contract. Until withdrawn, amounts in a Beneficiary IRA continue to be tax-deferred. Amounts withdrawn each year, including amounts that are required to be withdrawn under the RMD rules, are subject to tax.

If the contract owner died on or before December 31, 2019 (on or before December 31, 2021 for participants of a governmental plan or a plan maintained pursuant to a collective bargaining agreement), an individual designated beneficiary, and certain trusts as beneficiary, are treated as eligible designated beneficiaries, and can elect to take distributions over their life expectancy (life expectancy of the oldest trust beneficiary).

However, if the contract owner dies on or after January 1, 2020 (on or after January 1, 2022 for participants of a governmental plan or a plan maintained pursuant to a collective bargaining agreement), only certain designated beneficiaries are treated as eligible designated beneficiaries, and we will only offer the Beneficiary IRA payout option to a designated beneficiary who either (1) is the surviving spouse of the deceased qualified plan participant or IRA owner or, (2) is not more than ten years younger than the deceased qualified plan participant or IRA owner. In the future, we may allow additional classes of eligible designated beneficiaries to elect the Beneficiary IRA payout option.

Eligibility Requirements/Restrictions:

If a beneficiary(ies) elects to establish a Beneficiary IRA after the death of the contract owner, the following rules apply:

- Any withdrawals under a new Beneficiary IRA contract in excess of the RMD may be subject to a contingent deferred sales charge as indicated by the terms of the contract purchased.
- For existing annuity contracts with single beneficiaries issued by us or one of our affiliates, the beneficiary will have the option of electing a Beneficiary IRA payout option under the current contract or establishing a Beneficiary IRA by purchasing a new annuity contract issued by us or one of our affiliates. Should the beneficiary decide to elect the Beneficiary IRA payout option under the current contract, any withdrawals in excess of the RMD will not be subject to a contingent deferred sales charge.
- For existing annuity contracts with multiple beneficiaries issued by us or one of our affiliates, a beneficiary wishing to establish a Beneficiary IRA funded by an annuity contract issued by us or one of our affiliates must purchase a new annuity contract.
- The source of funds to be invested must be from a traditional IRA, SEP IRA, SIMPLE IRA, Beneficiary IRA, TSA, 401(a) or a Qualified Employee Plan (includes Pension Plan, Money Purchase Pension Plan, Profit Sharing Plan, Keogh (HR10), Target Benefit Plan).
- Joint ownership of a Beneficiary IRA is not allowed.
- The annuity contract will be titled in the beneficiary's name as beneficiary for the deceased contract owner. The beneficiary must be the annuitant and the annuitant cannot be changed.

- For non-spousal Beneficiary IRAs, RMDs must begin by December 31st of the year following the year of the date of the contract owner's death. For spousal Beneficiary IRAs, RMDs may be deferred until the year for which the original owner would have been required to begin RMDs. The RMD amount will generally be calculated based on the beneficiary's life expectancy and will be withdrawn on a proportional basis from all investment accounts in which funds are invested. If the original contract owner died on or before December 31, 2019 (on or before December 31, 2021 for participants of a governmental plan or a plan maintained pursuant to a collective bargaining agreement), after RMDs were required to begin, and was younger than the beneficiary, the RMD amount may be calculated based on the original contract owner's life expectancy in the year of his or her death. If there is a Beneficiary IRA previously established with another carrier and an RMD is required in the current calendar year, we will process the RMD. If however, an RMD is not required in the current calendar year, an RMD will not be processed until the year it is required.
- The contract value at time of issue will be equal to either the death benefit that would have been payable to the beneficiary if a lump sum distribution had been elected, or the contract value of an existing Beneficiary IRA that is being transferred to a new MassMutual annuity.
- Additional contributions cannot be applied to the Beneficiary IRA.
- Upon the death of the annuitant of the Beneficiary IRA, a death benefit, under the terms of the contract, will be paid to the succeeding beneficiary in a lump sum or over the annuitant's remaining life expectancy as determined by the applicable IRS table, but in no case may payments extend beyond the end of the calendar year that contains the tenth anniversary of the annuitant's death.
- If a Beneficiary IRA is established under the contract described in this prospectus, the following optional features are unavailable: the Guaranteed Minimum Accumulation Benefits and the Guaranteed Minimum Income Benefits.
- If the beneficiary is a trust, a Beneficiary IRA may only be established if the trust qualifies as a "see-through" trust. For see-through trusts, required minimum distributions must be calculated based upon the life expectancy of the oldest trust beneficiary and the oldest trust beneficiary must be the annuitant. In order to be a see-through trust, the trust must be valid under state law and be irrevocable, and all beneficiaries, current and future, must be identifiable from the trust instrument. If any beneficiary of the trust is not an individual, the trust is not a see-through trust and cannot establish a Beneficiary IRA. If the original owner died after December 31, 2019 (after December 31, 2021 for participants of a governmental plan or a plan maintained pursuant to a collective bargaining agreement), a trust is only eligible to elect a Beneficiary IRA if each of trust beneficiaries is either (1) the surviving spouse of the owner, or (2) not more than ten years younger than the owner.
- Additional rules may apply. Please consult your registered representative for further information.
- We have the right to modify, suspend or terminate the Beneficiary IRA program at any time without prior notification.
- A Beneficiary IRA may only be established by the beneficiary of the IRA owner/qualified plan participant whose death triggered the RMD requirements of IRC Section 401(a)(9). A Beneficiary IRA may not be established as a "second generation" Beneficiary IRA by a successor beneficiary.

Beneficiaries should consult a qualified tax adviser for advice prior to establishing a Beneficiary IRA.

Death of Contract Owner During the Income Phase

If you or the joint owner dies during the income phase, but the annuitant is still alive, we will pay the remaining payments under the annuity option elected at least as rapidly as under the method of distribution in effect at the time of your death. For qualified contracts, the beneficiary(ies) may be required to receive the present value of all or any portion of any remaining annuity payments in a lump sum, in order to comply with required minimum distribution rules that apply upon the owner/annuitant's death. If the beneficiary is not an "eligible designated beneficiary" as defined by IRC Section 401(a)(9), annuity payments may only continue through the end of the calendar year that contains the tenth anniversary of the owner/annuitant's death, even if a longer annuity payment option was elected, including a Joint and Last Survivor annuity option where the joint annuitant is still living.

If you, or any joint owner, die during the income phase, the primary beneficiary will become the owner. If any joint owner dies, we will treat the surviving joint owner as the primary beneficiary and treat any other beneficiary designation, on record at the time of death, as a contingent beneficiary, unless both joint owners have submitted a written request to our Service Center, in good order, requesting otherwise.

Death of Annuitant

If the annuitant, who is not the owner or joint owner, dies during the accumulation phase, you can name a new annuitant subject to our approval. If you do not name an annuitant within 30 calendar days of the death of the annuitant, the oldest owner will become the annuitant. However, if the owner is a non-natural person we will treat the death of the annuitant as the death of the owner, and you may not name a new annuitant. You cannot name a new annuitant on contract value that has been applied to an annuity option. **Upon the death of the annuitant on or after the annuity date, the death benefit, if any, is as specified in the annuity option elected.** We will pay death benefits at least as rapidly as under the method of distribution in effect at the annuitant's death. For qualified contracts, the beneficiary(ies) may be required to receive the present value of all or any portion of any remaining annuity payments in a lump sum, in order to comply with required minimum distribution rules that apply upon the owner/annuitant's death. If the beneficiary is not an "eligible designated beneficiary" as defined by IRC Section 401(a)(9), annuity payments may only continue through the end of the calendar year that contains the tenth anniversary of the owner/annuitant's death, even if a longer annuity payment option was elected, including a Joint and Last Survivor annuity option where the joint annuitant is still living.

Additional Transitions Custom Plan Contract Features

For an additional charge or credit, there are a number of additional contract features available to you if you elect the Transitions Custom Plan. You must elect these features when you apply for a contract unless otherwise stated. If you elect an additional feature after you apply for a contract, the effective date of your election must be on your contract anniversary date immediately following your election. If you elect an additional feature, it will replace the corresponding standard feature available under the Transitions Custom Plan. Certain features may not be available in all states.

If you elect one or more of the following additional features, we will deduct a corresponding charge for each feature you elect or provide your contract with a credit. Charges for the additional features are in addition to the standard contract expenses.

In the first contract year, we base all charges for additional contract features on your purchase payments received by us during that contract year. We will assess a charge for each additional contract feature upon our receipt of each purchase payment made to your contract during your first contract year.

At the end of your first contract year and at the end of every contract year thereafter, we will calculate the charge for each additional contract feature based on your contract value at that time and we will deduct the charge on each contract anniversary while the feature is in effect.

If you elect an additional feature after you apply for a contract, we will deduct the charge on the contract anniversary date that the additional feature becomes effective and on each contract anniversary date while the feature is in effect.

We will deduct the entire charge proportionally as follows:

(1) first, from the funds you are invested in as of the time we deduct the charge(s);

(2) if you do not have sufficient value invested in the funds to deduct the entire charge(s) from the funds, then we will deduct the entire charge(s) from the funds plus the fixed accounts you are invested in as of the time we deduct the charge(s) (excluding the Long-Term Guarantee Fixed Accounts); or

(3) if you do not have sufficient value invested in the funds and the fixed accounts (excluding the Long-Term Guarantee Fixed Accounts) to deduct the entire charge(s) from those investment choices, then we will deduct the entire charge(s) from the funds plus all of the fixed accounts you are invested in as of the time we deduct the charge(s).

For contracts issued in New York, charges will only be deducted from your contract value in the funds. We will not deduct charges from your contract value in the fixed accounts.

We calculate a charge assessed out of The Fixed Account and Long-Term Guarantee Fixed Accounts on a first-in, first out basis. In other words, we assess the charge attributed to the oldest purchase payments first; then we assess the charge attributed to the next oldest purchase payment; and so on.

Except for the Electronic Document Delivery Credit, we calculate all credits based on your contract value as of the end of the contract year. We will apply credits on your next succeeding contract anniversary proportionally to the funds that you are invested in as of the date we calculate the credit. If you are not invested in any of the funds when we apply the credit, we will automatically apply the credit to a money market fund.

These credit amounts may be subject to the assessment of a contingent deferred sales charge upon withdrawal or if you elect to receive an annuity payment.

Additional Contingent Deferred Sales Charge Features

Five Year Contingent Deferred Sales Charge Feature

The Transitions Custom Plan has a standard seven year contingent deferred sales charge schedule. For an additional charge of 0.20% annually, you can elect a five year contingent deferred sales charge schedule instead of the standard seven year contingent deferred sales charge schedule. You must elect this additional feature at the time you apply for a contract. We will assess this charge during the first five contract years while the contingent deferred sales charge schedule is in effect.

The five year contingent deferred sales charge schedule is as follows:

Contract Year When Withdrawal is Made or Contract Value is Applied to Annuity Option E (1)	**Charge** (as a percentage of the amount you withdraw or apply to Annuity Option E(1))
1	7%
2	7%
3	7%
4	6%
5	5%
6 or more	0%

(1) We will not impose a contingent deferred sales charge upon application of the contract value to a Period Certain Annuity under Annuity Option E of at least ten years. See "Expenses – Contingent Deferred Sales Charge" for more information.

Nine Year Contingent Deferred Sales Charge Feature

The Transitions Custom Plan has a standard seven year contingent deferred sales charge schedule. You can elect a nine year contingent deferred sales charge schedule instead of the standard seven year contingent deferred sales charge schedule. If you so elect, we will credit your contract in an amount equal to 0.10% of your contract value as of the end of each contract year. We will apply this credit while the contingent deferred sales charge schedule is in effect and on the tenth contract anniversary. You must elect this additional feature at the time you apply for a contract.

The nine year contingent deferred sales charge schedule is as follows:

Contract Year When Withdrawal is Made or Contract Value is Applied to Annuity Option E (1)	**Charge** (as a percentage of the amount you withdraw or apply to Annuity Option E(1))
1	8%
2	8%
3	7%
4	6%
5	5%
6	4%
7	3%
8	2%
9	1%
10 or more	0%

(1) We will not impose a contingent deferred sales charge upon application of the contract value to a Period Certain Annuity under Annuity Option E of at lease ten years. See "Expenses – Contingent Deferred Sales Charge" for more information.

Additional Free Withdrawal Features

For an additional charge, you can elect one of the following free withdrawal features as a replacement for the standard Transitions Custom Plan 10% free withdrawal provision.

10%/20% Free Withdrawal Feature

The Transitions Custom Plan has a standard 10% free withdrawal provision. For an additional charge of 0.25% annually, you can elect the following free withdrawal provision instead of the standard 10% free withdrawal provision:

In your first contract year, you may withdraw, without incurring a contingent deferred sales charge, up to 10% of your purchase payments reduced by any free withdrawal amount previously taken during the contract year. Beginning in the second contract year, you may withdraw up to 20% of your contract value as of the end of the previous contract year, plus 20% of any purchase payment received in the current contract year, reduced by any free withdrawal amount previously taken during the current contract year.

You may take your free withdrawal amount in multiple withdrawals each contract year. You must elect this additional feature at the time you apply for a contract. We will assess the charge for this feature while your contingent deferred sales charge schedule is in effect.

15%/Cumulative to 30% Free Withdrawal Feature

The Transitions Custom Plan has a standard 10% free withdrawal provision. For an additional charge of 0.15% annually, you can elect the following free withdrawal provision instead of the standard 10% free withdrawal provision:

In your first contract year, you may withdraw, without incurring a contingent deferred sales charge, up to 15% of your purchase payments reduced by any free withdrawal amount previously taken during the contract year. Beginning in the second contract year, you may withdraw up to 15% of your contract value as of the end of the previous contract year, plus 15% of any purchase payment received in the current contract year, reduced by any free withdrawal amount previously taken during the current contract year. For partial withdrawals only, you may carry forward any unused portion of the free withdrawal amount into successive years, up to a maximum of 30% of your previous contract year-end contract value plus any purchase payment received in the current contract year.

You may take your free withdrawal amount in multiple withdrawals each contract year. You must elect this additional feature at the time you apply for a contract. We will assess this charge while your contingent deferred sales charge schedule is in effect.

Additional Death Benefit Features

There are a number of death benefit features available under the Transitions Custom Plan. However, certain additional death benefit features may not be available in all states.

You may elect only one death benefit feature at a time. If you do not elect a death benefit feature when we issue your contract, the death benefit feature under your contract will be the basic death benefit. We do not assess an additional charge for the basic death benefit. However, we will provide your contract with a credit or assess an additional charge to your contract if you elect one of the additional death benefit features. You may add or terminate a death benefit feature on any contract anniversary as long as we receive, in good order, written notice of your intention to do so at our Service Center at least seven calendar days prior to your contract anniversary date.

If you are age 80 or beyond when you elect a death benefit feature, the only death benefit features that you may elect are the basic death benefit and the basic death benefit with annual ratchet feature.

If your death benefit amount is greater than your contract value at the time you change death benefit features under the Transitions Custom Plan, the change in death benefit features may result in a decrease in your death benefit amount. Please contact your registered representative for more information on the impact of changing death benefit features after we issue your contract.

Contract Value Death Benefit

You can elect the contract value death benefit to serve as your Transitions Custom Plan death benefit instead of the basic death benefit. If you so elect, we currently calculate a credit in the amount of 0.05% of your contract value as of the end of each contract year while this death benefit feature is in effect. We apply the credit on your immediately following contract anniversary. We may reduce this credit at any time while you own the contract, but the credit will never be less than 0.02%.

The contract value death benefit is equal to your contract value as of the business day we receive proof of death and election of the payment method in good order at our Service Center.

Basic Death Benefit with 3 Year Reset Feature

You can elect the basic death benefit with 3 year reset feature to serve as your Transitions Custom Plan death benefit instead of the basic death benefit. If you so elect, we currently deduct an additional charge of 0.10% annually. We may increase this charge at any time while you own the contract, but the charge will never exceed 0.20% if you are age 60 or less; 0.30% if you are age 61 through age 70; or 0.70% if you are age 71 or older.

The death benefit paid will be the amount calculated (and adjusted for any applicable charges) as of the business day we receive proof of death and election of the payment method in good order at our Service Center. From the time the death benefit is determined until complete distribution is made, any amount in a sub-account will be subject to investment risk. As a result, the death benefit amount may increase or decrease over time. The risk is borne by the beneficiary(ies).

The death benefit will be the greatest of:

- your contract value; or
- the 3 year reset feature value; or
- your purchase payments, less any withdrawals and applicable charges.

For contracts issued on or after October 1, 2003, subject to state approval and implementation, the words "less any withdrawals" are replaced with the words "adjusted for any withdrawals." See "Death Benefit – Adjusted for Any Withdrawals or Less Any Withdrawals."

Prior to you reaching age 80, we will recalculate the 3 year reset feature value on each 3 year contract anniversary following the date your election of this death benefit is effective or when we receive your purchase payment or you take a withdrawal as follows:

(1) On each 3 year contract anniversary date following the date your election of this death benefit is effective, the 3 year reset feature value is equal to your contract value at that time. This value may be higher or lower than the prior 3 year reset feature value.

(2) When a purchase payment is made, the 3 year reset feature value is equal to the most recently calculated 3 year reset feature value plus the purchase payment.

(3) When a withdrawal is taken, the 3 year reset feature value is equal to the most recently calculated 3 year reset feature value, reduced by an adjustment for withdrawals. The adjustment for withdrawals is equal to:
   - the withdrawal amount, including any applicable charges, divided by your contract value immediately prior to the withdrawal;
   - with the result multiplied by the most recently calculated 3 year reset feature.

At age 80 and beyond, the 3 year reset feature value is the 3 year reset feature value at age 80, adjusted for subsequent purchase payments and withdrawals pursuant to the 3 year reset feature value calculation described in 2 and 3 above.

If you elect this death benefit feature after we issue your contract, the initial 3 year reset feature value on the date your election of this death benefit is effective will be equal to the lesser of your contract value or your purchase payments, less withdrawals. If you terminate this death benefit feature, your death benefit will be reset to the basic death benefit unless you select another death benefit feature instead.

If there are joint owners of the contract, we will use the age of the oldest joint owner to determine the death benefit amount. If the contract is owned by a non-natural person, we will use the age of the annuitant to determine the death benefit amount.

We consider requests to apply part of your contract value to an annuity option as a withdrawal for purposes of calculating the death benefit amount.

References to Age

Age is as of the nearest birthday. For example, age 80 is generally the period of time between age 79 years, 6 months and 1 day and age 80 and 6 months. See "Age."

Basic Death Benefit with 5% Roll-up Feature

You can elect the basic death benefit with 5% roll-up feature to serve as your Transitions Custom Plan death benefit instead of the basic death benefit. If you so elect, we currently deduct an additional charge of 0.40% annually. We may increase this charge at any time while you own the contract, but the charge will never exceed 0.50% if you are age 60 or less; 0.75% if you are age 61 through age 70; or 1.20% if you are age 71 or older.

The death benefit paid will be the amount calculated (and adjusted for any applicable charges) as of the business day we receive proof of death and election of the payment method in good order at our Service Center. From the time the death benefit is determined until complete distribution is made, any amount in a sub-account will be subject to investment risk. As a result, the death benefit amount may increase or decrease over time. The risk is borne by the beneficiary(ies).

The death benefit is the greatest of:

- your contract value; or
- the roll-up feature value; or
- your purchase payments less any withdrawals and applicable charges.

For contracts issued on or after October 1, 2003, subject to state approval and implementation, the words "less any withdrawals" are replaced with the words "adjusted for any withdrawals." See "Death Benefit – Adjusted for Any Withdrawals or Less Any Withdrawals."

We recalculate the roll-up feature value when we receive a purchase payment from you or if you make a withdrawal as follows:

(1) The roll-up feature value is equal to the accumulation at interest of all purchase payments adjusted for any withdrawals and applicable charges, but not more than twice the sum of purchase payments adjusted for any withdrawals and applicable charges. We will use an effective annual rate of interest of 5% in the following calculations for any period prior to you reaching age 80 and 0% thereafter.

(2) When a purchase payment is made, the roll-up feature value is equal to the most recently calculated roll-up feature value accumulated to the date of the purchase payment plus the purchase payment.

(3) When a withdrawal is taken, the roll-up feature value is equal to the most recently calculated roll-up feature value accumulated to the date of the withdrawal reduced by an adjustment for withdrawals. The adjustment for withdrawals is equal to:
   - the withdrawal amount, including any applicable charges, divided by your contract value immediately prior to the withdrawal;
   - with the result multiplied by the most recently calculated roll-up feature value accumulated to the date of withdrawal.

(4) On any other date, the roll-up feature value is equal to the most recently calculated roll-up feature value accumulated to that date.

If you elect this death benefit feature after we issue your contract, the initial roll-up feature value on the date your election of this death benefit feature is effective is equal to your contract value at that time. If you elect this death benefit feature after we issue your contract and your prior death benefit feature was not the basic death benefit with combination feature, we must add the earnings enhancement benefit feature to your death benefit. Under these circumstances, the maximum benefit for the roll-up feature value is equal to two times the contract value at the time of your election of the feature adjusted for subsequent purchase payments and withdrawals. If you elect this death benefit feature after we issue your contract and your previous death benefit feature was the basic death benefit with combination feature, the 5% roll-up death benefit feature will continue to accrue and the maximum limit will remain the same as under the basic death benefit with combination feature. If you terminate this death benefit feature, your death benefit will be reset to the basic death benefit unless you select another death benefit feature instead.

If there are joint owners of the contract, we will use the age of the oldest joint owner to determine the death benefit amount. If the contract is owned by a non-natural person, we will use the age of the annuitant to determine the death benefit amount.

We consider requests to apply part of your contract value to an annuity option as a withdrawal for purposes of calculating the death benefit amount.

References to Age

Age is as of the nearest birthday. For example, age 80 is generally the period of time between age 79 years, 6 months and 1 day and age 80 and 6 months. See "Age."

Basic Death Benefit with Annual Ratchet Feature

You can elect the basic death benefit with the annual ratchet feature to serve as your Transitions Custom Plan death benefit instead of the basic death benefit. If you so elect, we currently deduct an additional charge of 0.25% annually. We may increase this charge at any time while you own the contract, but the charge will never exceed 0.35% if you are age 60 or less; 0.55% if you are age 61 through age 70; or 0.80% if you are age 71 or older.

The death benefit paid will be the amount calculated (and adjusted for any applicable charges) as of the business day we receive proof of death and election of the payment method in good order at our Service Center. From the time the death benefit is determined until complete distribution is made, any amount in a sub-account will be subject to investment risk. As a result, the death benefit amount may increase or decrease over time. The risk is borne by the beneficiary(ies).

The amount of the death benefit will be the greatest of:

- your contract value; or
- the highest anniversary value reduced by an adjustment for withdrawals and increased by any purchase payments; or
- the amount of purchase payments you have made to the contract less any withdrawals.

For contracts issued on or after October 1, 2003, subject to state approval and implementation, the words "less any withdrawals" are replaced with the words "adjusted for any withdrawals." See "Death Benefit – Adjusted for Any Withdrawals or Less Any Withdrawals."

The Highest Anniversary Value

If you elect the basic death benefit with annual ratchet feature when we issue your contract, your initial highest anniversary value is equal to your initial purchase payment. If you make your election after we issue your contract, your initial highest anniversary value equals your contract value on the date the election is effective.

On each contract anniversary prior to age 80 the highest anniversary value will be recalculated and set to equal the greater of:

- the most recently calculated highest anniversary value; or
- your contract value on the date of the recalculation.

Age 80 refers to the oldest owner's age or, if the owner is a non-natural person, the oldest annuitant's age.

On dates other than the contract anniversary, we will recalculate the highest anniversary value each time you make a purchase payment or a withdrawal. We will increase it by any purchase payments and reduce it by an adjustment for any withdrawals.

At age 80 and above, the highest anniversary value will no longer change and will remain as last calculated except we will increase it if you make subsequent purchase payments and we will adjust it for any subsequent withdrawals. Age 80 refers to the oldest owner's age or, if the owner is a non-natural person, the oldest annuitant's age.

If you elect this death benefit feature after we issue your contract, the initial highest anniversary value equals the lesser of your contract value or your purchase payments less withdrawals as of the date the election is effective. If you elect this death benefit feature after we issue your contract and your previous death benefit feature was the basic death benefit with combination feature, then the annual ratchet feature will continue under this death benefit feature. If you terminate this death benefit feature, your death benefit will be reset to the basic death benefit unless you elect another death benefit feature.

References to Age

Age is as of the nearest birthday. For example, age 80 is generally the period of time between age 79 years, 6 months and 1 day and age 80 and 6 months. See "Age."

Adjustment for Withdrawals

When we adjust purchase payments for subsequent withdrawals we look at the withdrawal amount, divide it by your contract value just prior to the withdrawal and then multiply that by the most recently adjusted purchase payments prior to the withdrawal.

When we adjust the highest anniversary value for subsequent withdrawals we look at the withdrawal amount, divide it by your contract value just prior to the withdrawal and then multiply that by the most recently calculated highest anniversary value.

We consider requests to apply part of your contract value to an annuity option as a withdrawal for purposes of calculating the death benefit amount.

Basic Death Benefit with Combination Feature

You can elect the basic death benefit with the combination feature to serve as your Transitions Custom Plan death benefit instead of the basic death benefit. If you so elect, we currently deduct an additional charge of 0.45% annually. We may increase this charge at any time while you own the contract, but the charge will never exceed 0.50% if you are age 60 or less; 0.80% if you are age 61 through age 70; or 1.25% if you are age 71 or older.

The basic death benefit with combination feature is a combination of the basic death benefit with 5% roll-up feature and the basic death benefit with annual ratchet feature.

The death benefit paid will be the amount calculated (and adjusted for any applicable charges) as of the business day we receive proof of death and election of the payment method in good order at our Service Center. From the time the death benefit is determined until complete distribution is made, any amount in a sub-account will be subject to investment risk. As a result, the death benefit amount may increase or decrease over time. The risk is borne by the beneficiary(ies).

The death benefit is the greatest of:

- your contract value; or
- the value of the annual ratchet feature; or
- the value of the roll-up feature; or
- your purchase payments, less any withdrawals and any applicable charges.

For contracts issued on or after October 1, 2003, subject to state approval and implementation, the words “less any withdrawals” are replaced with the words “adjusted for any withdrawals.” See “Death Benefit – Adjusted for Any Withdrawals or Less Any Withdrawals.” Please refer to “Basic Death Benefit with Annual Ratchet Feature” and “Basic Death Benefit with 5% Roll-Up Feature” earlier in this section for an explanation as to how we calculate those two features.

If you elect this death benefit feature after we issue your contract and your previous death benefit feature was neither the basic death benefit with annual ratchet feature nor the basic death benefit with 5% roll-up feature, your contract value on the date your election of this death benefit feature is effective will act as the initial purchase payment. If your previous death benefit feature was the basic death benefit with annual ratchet feature, the annual ratchet feature will continue to accrue and the 5% roll-up feature will start accruing at your contract value at the time your election of this death benefit feature is effective. If your previous death benefit feature was the basic death benefit with 5% roll-up feature, the 5% roll-up death benefit will continue to accrue subject to its maximum limitation, and the annual ratchet death benefit will start accruing at your contract value at the time your election of this death benefit feature is effective.

If you elect this death benefit feature after we issue your contract and your previous death benefit option was neither the basic death benefit with annual ratchet feature nor the basic death benefit with 5% roll-up feature, we will automatically add the earnings enhancement death benefit feature to your death benefit as of the time your election of this death benefit feature is effective. If you terminate this death benefit feature, your death benefit will be reset to the basic death benefit unless you select another death benefit feature instead.

If there are joint owners of the contract, we will use the age of the oldest joint owner to determine the death benefit amount. If the contract is owned by a non-natural person, we will use the age of the annuitant to determine the death benefit amount.

We consider requests to apply part of your contract value to an annuity option as a withdrawal for purposes of calculating the death benefit amount.

References to Age

Age is as of the nearest birthday. For example, age 80 is generally the period of time between age 79 years, 6 months and 1 day and age 80 and 6 months. See “Age.”

Earnings Enhancement Benefit Feature

For an additional charge, you can elect the earnings enhancement benefit to supplement any death benefit feature you have elected under the Transitions Custom Plan. If you so elect, the charge we deduct will depend upon the death benefit feature you have elected. We deduct an additional charge currently at the following rates:

Death Benefit Feature	Charge
Basic Death Benefit	0.25% (annually)
Contract Value Death Benefit	0.30% (annually)
Basic Death Benefit with 3 Year Reset Feature	0.20% (annually)
Basic Death Benefit with 5% Roll-up Feature	0.15% (annually)
Basic Death Benefit with Annual Ratchet Feature	0.15% (annually)
Basic Death Benefit with Combination Feature	0.15% (annually)

We may increase this charge at any time while you own the contract, but the charge will never exceed 0.45%.

The additional benefit amount is a percentage of your contract's earnings since your election of this feature is effective to the date we determine the death benefit amount. For the purposes of this benefit, we define earnings as the difference between:

- your contract value and
- your purchase payments less withdrawals as of the date of your death. For the purposes of this benefit, we will take any withdrawals from earnings first.

We base the applicable percentage upon your age as of the date of your last election of this feature as outlined in the following table:

Ages	Percentage of Earnings
0 – 69	40%
70 – 72	25%
73 – 75	18%
76 – 78	11%
79 – 80	7%

If your age as of the date your election of this feature is effective is less than age 70, this benefit is subject to a maximum benefit amount of 100% of your purchase payments less withdrawals and any applicable charges. If your age as of the date your election of this feature is effective is age 70 or over, this benefit is subject to a maximum of 40% of your purchase payments less withdrawals and any applicable charges. For the purposes of this benefit, we will take any withdrawals from earnings first.

If you terminate this feature, the earnings enhancement feature benefit amount will no longer be payable. If you elect this feature after we issue your contract, we will treat the greater of your contract value as of the effective date of your election of this feature or your purchase payments less any withdrawals as your purchase payment amount for determining your benefit.

You may not elect the Earnings Enhancement Benefit after you reach age 80.

If there are joint owners of the contract, we will use the age of the oldest joint owner to determine the death benefit amount. If the contract is owned by a non-natural person, we will use the age of the annuitant to determine the death benefit amount.

We consider requests to apply part of your contract value to an annuity option as a withdrawal for purposes of calculating the death benefit amount.

References to Age

Age is as of the nearest birthday. For example, age 80 is generally the period of time between age 79 years, 6 months and 1 day and age 80 and 6 months. See "Age."

Guaranteed Minimum Income Benefits

For an additional charge, the Transitions Custom Plan offers three distinct guaranteed minimum income benefits. A guaranteed minimum income benefit ensures the availability of a minimum amount when you choose to apply your contract value to an annuity option. We refer to this minimum amount as the guaranteed annuitization value. If you do not choose to apply your entire contract value to an annuity option, you will not receive a benefit under any of the guaranteed minimum income benefits. The guaranteed minimum income benefit may provide protection in the event of lower contract values that may result from the investment performance of the contract.

You may elect a guaranteed minimum income benefit when you apply for your contract and on any contract anniversary after we issue your contract as long as we receive, in good order, written notice of your intention to do so at our Service Center prior to your contract anniversary date. If you elect this benefit when we issue your contract, your initial guaranteed annuitization value will be your initial purchase payment. If you add this benefit after we issue your contract, your initial guaranteed annuitization value will be the lesser of:

- your total purchase payments less withdrawals or
- your contract value

as of the date you elect this benefit.

We will add your additional purchase payments to the guaranteed annuitization value and accumulate them from the date we receive the purchase payment until you reach the maximum guaranteed annuitization value. For withdrawals, the benefit amount is equal to the most recently calculated guaranteed annuitization value reduced by an adjustment for withdrawals. The adjustment for withdrawals is equal to:

- the withdrawal amount, including any applicable charges, divided by your contract value immediately prior to the withdrawal;
- with the result multiplied by the most recently calculated guaranteed annuitization value.

The three guaranteed minimum income benefits are subject to the following restrictions:

- The guaranteed minimum income benefit becomes irrevocable 30 calendar days after your election of this benefit is effective.
- The guaranteed annuitization value is only available when you apply the full amount of your contract value to an approved annuity option. If you apply part of your contract value to an approved annuity option the guaranteed annuitization value is not available and we will treat the request as a withdrawal for purposes of adjusting the guaranteed annuitization value.
- The maximum guaranteed annuitization value is 200% of your purchase payments adjusted for withdrawals.
- Accumulation of the benefit will stop when the annuitant reaches age 80 or the maximum guaranteed annuitization value is achieved, whichever occurs first.
- You may not elect the guaranteed minimum income benefit feature once the annuitant reaches age 80.
- You may apply the guaranteed annuitization value to an annuity payment option once the guaranteed minimum income benefit has been in effect for seven years and the annuitant reaches age 60.
- You can apply the benefit only to receive fixed payments from any life contingent annuity option. (Currently, Annuity Options A, B, C and D.)
- If you elect either the 3% or 5% guaranteed minimum income benefit, we will not credit any interest to your guaranteed annuitization value for the entire contract year if your contract value invested in the fixed accounts and the money market funds becomes 30% or greater of your total contract value at any time during the contract year. However, if your investment in the fixed accounts and the money market funds exceeds 30% of your total contract value solely as a result of fluctuations in the performance of the funds in which you are invested, then we will continue to credit the applicable rate of interest to your guaranteed annuitization value.

We use the age of the annuitant to determine the guaranteed annuitization value. Age is as of nearest birthday, see “Age.”

We consider requests to apply part of your contract value to an annuity option as a withdrawal for purposes of calculating the guaranteed annuitization value.

Important Guaranteed Minimum Income Benefit (GMIB) Considerations

A GMIB ensures the availability of a minimum amount when you choose to receive fixed payments from any life contingent annuity option. This feature may provide protection in the event of lower contract values that may result from the performance of the investment choices you choose. However, this feature may not be appropriate for all contract owners. You should understand the GMIB completely before you elect this feature.

- A GMIB does not in any way guarantee the performance of any of the investment choices available under this contract.
- We will not refund the charges we have assessed against your contract for electing this feature, even if you elect to use your full contract value to receive annuity payments.
- Withdrawals will negatively impact the guaranteed annuitization value. The guaranteed annuitization value may be reduced by more than the actual dollar amount of the withdrawal.
- The GMIB is a long-term benefit and you may only benefit from this feature if you continue the GMIB for the full benefit period.
- Consult a tax adviser before considering the GMIB in conjunction with a tax-qualified contract because IRS minimum distribution requirements may negatively impact the benefit.
- Please consult with a qualified financial professional when you are evaluating the GMIB and all other aspects of the contract.

Payout Rates, Contract Value and the GMIB. When you enter the Income Phase, we calculate your annuity payments using the values which provide the most favorable annuity payment, either:

(1) **the guaranteed annuitization value and the guaranteed payout rates in your contract;**

(2) **your contract value and the guaranteed payout rates in your contract; or**

(3) **your contract value and our single premium immediate annuity rates available on the date we calculate your annuity payments.**

Return of Purchase Payment Guaranteed Minimum Income Benefit

The return of purchase payment guaranteed minimum income benefit provides that the guaranteed annuitization value will be your total purchase payments adjusted for withdrawals that you have taken. If you elect the return of purchase payment guaranteed minimum income benefit, we currently deduct an additional charge of 0.05% annually. We may increase this charge at any time while you own the contract, but the charge will never exceed 0.20%. We will discontinue assessing this charge when you apply your full contract value to an annuity option or if you terminate the guaranteed minimum income benefit feature within 30 calendar days after your election of the benefit is effective.

3% Guaranteed Minimum Income Benefit

The 3% guaranteed minimum income benefit provides that the guaranteed annuitization value will be accumulated at a compounded annual rate of 3% starting on the date you elected this feature. If you elect the 3% guaranteed minimum income benefit, we currently deduct an additional charge of 0.20% annually. We may increase this charge at any time while you own the contract, but the charge will never exceed 0.30%. We will discontinue assessing this charge when you apply your full contract value to an annuity option or if you terminate the guaranteed minimum income benefit feature within 30 calendar days after your election of the benefit is effective.

5% Guaranteed Minimum Income Benefit

The 5% guaranteed minimum income benefit provides that the guaranteed annuitization value will be accumulated at a compounded annual rate of 5% starting on the date you elected this feature. If you elect the 5% guaranteed minimum income benefit, we currently deduct an additional charge of 0.35% annually. We may increase this charge at any time while you own the contract, but the charge will never exceed 0.55%. We will discontinue assessing this charge when you apply your full contract value to an annuity option or if you terminate the guaranteed minimum income benefit feature within 30 calendar days after your election of the benefit is effective.

Guaranteed Minimum Accumulation Benefits

For an additional charge, the Transitions Custom Plan offers two distinct guaranteed minimum accumulation benefits. A guaranteed minimum accumulation benefit ensures the availability of a minimum contract value at the end of a specified benefit period. Unlike the guaranteed minimum income benefit, you do not have to elect to receive annuity payments in order to utilize the guaranteed minimum accumulation benefit. The guaranteed minimum accumulation benefit may provide protection in the event of lower contract values that may result from the investment performance of the contract.

You may elect a guaranteed minimum accumulation benefit when you apply for your contract or on any contract anniversary after we issue your contract as long as we receive, in good order, written notice of your intention to do so at our Service Center prior to your contract anniversary date. The guaranteed minimum accumulation benefit becomes irrevocable 30 calendar days after your election of the benefit is effective.

Important Guaranteed Minimum Accumulation Benefit (GMAB) Considerations

A GMAB ensures the availability of a minimum contract value at the end of a specified benefit period. This feature may provide protection in the event of lower contract values that may result from the performance of the investment choices you choose. However, this feature may not be appropriate for all contract owners. You should understand the GMAB completely before you elect this feature.

- A GMAB does not in any way guarantee the performance of any of the investment choices available under this contract.
- If your contract value is greater than your benefit amount as of the end of the benefit period, we will not refund to you the charges we have assessed against your contract for electing this feature.
- Withdrawals will negatively impact the GMAB. The GMAB may be reduced by more than the actual dollar amount of the withdrawal.
- Consult a tax adviser before considering the GMAB in conjunction with a tax-qualified contract because any IRS minimum distribution requirements may negatively impact the benefit.
- Because the charge for the GMAB is a percentage of your contract value, any purchase payments made after the second contract year following the effective date of your election of the benefit, could increase the cost of the GMAB without a corresponding increase in the benefit. Likewise, such purchase payments may ultimately reduce the value of the benefit.
- The GMAB is a long-term benefit and you may only benefit from this feature if you continue the GMAB for the full benefit period.
- Please consult with a qualified financial professional when you are evaluating the GMAB and all other aspects of the contract.

Return of Purchase Payment Guaranteed Minimum Accumulation Benefit

The return of purchase payment guaranteed minimum accumulation benefit provides for a minimum benefit after a specified period of time. If you elect the return of purchase payment guaranteed minimum accumulation benefit when we issue your contract, the guaranteed minimum accumulation benefit will be your total purchase payments as of the end of the second contract year after you elect this benefit, adjusted for any withdrawals you have taken during the benefit period. If you elect this benefit after we have issued your contract, the guaranteed minimum accumulation benefit is the lesser of:

- your total purchase payments less any withdrawals as of the date your election of this benefit is effective or
- your contract value as of the date your election of this benefit is effective,

plus your purchase payments made for two contract years following the effective date of your election adjusted for subsequent withdrawals until the benefit is payable.

For withdrawals, the benefit amount is equal to the most recently calculated guaranteed minimum accumulation benefit reduced by an adjustment for withdrawals. The adjustment for withdrawals is equal to:

- the withdrawal amount, including any applicable charges, divided by your contract value immediately prior to the withdrawal;
- with the result multiplied by the most recently calculated guaranteed minimum accumulation benefit

The benefit period for the return of purchase payment guaranteed minimum accumulation benefit is ten years after your election of this benefit is effective. Your benefit is not available to you until the end of the benefit period. At the end of the benefit period, we will increase your contract value to equal the guaranteed minimum accumulation benefit amount if the guaranteed minimum accumulation benefit amount exceeds your contract value at that time. If your contract value exceeds the guaranteed minimum accumulation benefit amount at the end of the benefit period, we will not increase your contract value. In either case, the guaranteed minimum accumulation benefit feature will terminate at this time and no benefits or charges will accrue thereafter. The benefit period may vary in certain states.

We consider requests to apply part of your contract value to an annuity option as a withdrawal for purposes of calculating the guaranteed minimum accumulation benefit.

If you elect this rider and the benefit period extends beyond your latest permitted annuity date, this rider does not provide a benefit.

If you elect the return of purchase payment guaranteed minimum accumulation benefit, we currently deduct an additional charge of 0.35%. We may increase this charge at any time while you own the contract, but the charge will never exceed 0.50%. We will discontinue assessing this charge at the end of the benefit period, if you apply your contract value to an annuity option or if you terminate the guaranteed minimum accumulation benefit feature within 30 calendar days after your election of the benefit is effective.

Two Times Return of Purchase Payment Guaranteed Minimum Accumulation Benefit

The two times return of purchase payment guaranteed minimum accumulation benefit provides for a minimum benefit after a specified period of time. If you elect the two times return of purchase payment guaranteed minimum accumulation benefit when we issue your contract, the guaranteed minimum accumulation benefit will be two times your total purchase payments as of the end of the second contract year after you elect this benefit, adjusted for any withdrawals you have taken during the benefit period. If you elect this benefit after we have issued your contract, the guaranteed minimum accumulation benefit is the lesser of:

- two times your total purchase payments less any withdrawals as of the date your election of this benefit is effective or
- two times your contract value as of the date your election of this benefit is effective,

plus two times your purchase payments made for two contract years following the effective date of your election adjusted for subsequent withdrawals until the benefit is payable.

For withdrawals, the benefit amount is equal to the most recently calculated guaranteed minimum accumulation benefit reduced by an adjustment for withdrawals. The adjustment for withdrawals is equal to:

- the withdrawal amount, including any applicable charges, divided by your contract value immediately prior to the withdrawal;
- with the result multiplied by the most recently calculated guaranteed minimum accumulation benefit

The benefit period for the two times return of purchase payment guaranteed minimum accumulation benefit is 20 years (26 years for contracts issued in New York) after your election of this benefit is effective. Your benefit is not available to you until the end of the benefit period. At the end of the benefit period we will increase your contract value to equal the guaranteed accumulation benefit amount if the guaranteed minimum accumulation benefit amount exceeds your contract value at that time. If your contract value exceeds the guaranteed minimum accumulation benefit amount at the end of the benefit period, we will not increase your contract value. In either case, the guaranteed minimum accumulation benefit feature will terminate at this time and no benefits or charges will accrue thereafter. The benefit period may vary in certain states.

You may not elect the two times return of purchase payment guaranteed minimum accumulation benefit feature once you or the annuitant, if the contract is owned by a non-natural person, reach age 80 (for contracts issued outside of New York). This age restriction may vary in certain states. Age is as of nearest birthday, see “Age.”

We consider requests to apply part of your contract value to an annuity option as a withdrawal for purposes of calculating the guaranteed minimum accumulation benefit.

If you elect this rider and the benefit period extends beyond your latest permitted annuity date, this rider does not provide a benefit.

If you elect the two times return of purchase payment guaranteed minimum accumulation benefit, we currently deduct an additional charge of 0.35% annually. We may increase this charge at any time while you own the contract, but the charge will never exceed 0.50%. We will discontinue assessing this charge at the end of the benefit period, if you apply your contract value to an annuity option or if you terminate the guaranteed minimum accumulation benefit feature within 30 calendar days after your election of the benefit is effective.

Nursing Home Waiver Benefit

Also known in certain states as the Nursing Home Waiver of Contingent Deferred Sales Charge Rider

For an additional charge, the Transitions Custom Plan offers a nursing home waiver benefit. If you elect the nursing home waiver benefit, we currently deduct an additional charge of 0.05% annually. We may increase this charge at any time while you own the contract, but the charge will never exceed 0.10%. We will assess this charge while the contingent deferred sales charge schedule is in effect. You must elect this additional feature at the time you apply for a contract.

If you have elected the nursing home waiver benefit, you may withdraw all or a portion of your contract value without incurring a contingent deferred sales charge if we receive written confirmation in good order at our Service Center that you (or the annuitant, if the owner is a non-natural person) have been admitted to a licensed nursing care facility after your purchase of this contract subject to the following requirements:

- The nursing home waiver is not in effect until one contract year has elapsed since you elected this benefit.
- This waiver is not available if you resided in a licensed nursing care facility within two years prior to your election of this benefit.
- Your stay in a licensed nursing care facility must be prescribed by a physician and be medically necessary.
- We will require that you provide us with written documentation satisfactory to us that confirms that you still reside in a licensed nursing care facility every time you request a partial withdrawal.
- You must make each withdrawal request while you are presently confined in a licensed nursing care facility for a period of not less than 90 days.

You may not participate in the systematic withdrawal program if you elected the nursing home waiver benefit and we are currently waiving the contingent deferred sales charge in accordance with that benefit.

We define a licensed nursing care facility to be an institution licensed by the state in which it is located to provide skilled nursing care, intermediate nursing care or custodial nursing care.

Equalizer Benefit

For an additional charge, the Transitions Custom Plan offers a type of earnings adjustment benefit called the equalizer benefit. If you elect the equalizer benefit, we deduct an additional charge of 0.50% annually. We may increase this charge at any time while you own the contract, but the charge will never exceed 0.60%. We will assess this charge while the benefit is in effect. You must elect this additional feature at the time you apply for a contract.

The equalizer benefit provides a credit at the end of the following benefit periods:

- the tenth contract year; and
- every five year contract period thereafter.

We base the credit on 10% of net earnings for each benefit period. The credit will never be less than zero. When determining earnings, we add additional purchase payments to the remaining purchase payments and we deduct withdrawals as earnings first. For the initial benefit period, we define earnings as the difference between your contract value and your remaining purchase payments as of the end of the benefit period.

For subsequent benefit periods after the tenth contract year, we define earnings as:

- your contract value at the end of the benefit period;
- minus your contract value at the end of the immediately preceding benefit period;
- minus your purchase payments since the end of the immediately preceding benefit period;
- plus withdrawals since the end of the immediately preceding benefit period;
- minus the equalizer benefit from the immediately preceding benefit period.

We will not count benefits that are paid as earnings when we determine the earnings amount for the subsequent benefit period. We will pay the equalizer benefit only until you reach age 80. We will limit individual payments of the benefit to 40% of the amount of your total purchase payments less any withdrawals. If you terminate this benefit during a benefit period, we will not pay you any benefit for that benefit period.

We will not subject this credit amount to the assessment of a contingent deferred sales charge upon withdrawal or if you elect to apply your contract value to an annuity option.

If there are joint owners of the contract, we will use the age of the oldest joint owner to determine the equalizer benefit. If the contract is owned by a non-natural person, we will use the age of the annuitant to determine the equalizer benefit.

You may not elect the equalizer benefit once you reach age 70. We consider requests to apply part of your contract value to an annuity option as a withdrawal for purposes of calculating the equalizer benefit. Age is as of nearest birthday, see “Age.”

Taxes

The information in this prospectus is general and is not an exhaustive discussion of all tax questions that might arise under the contract. The information is not written or intended as tax or legal advice. You should consult a tax adviser about your own circumstances. 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, Regulations, and other guidance will continue. We cannot make any guarantee regarding the future tax treatment of any contract. We reserve the right to make changes in the contract to assure that it continues to qualify as an annuity for tax purposes.

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

Taxation of the Company

MassMutual is taxed as a life insurance company under the Internal Revenue Code of 1986, as amended (IRC). For federal income tax purposes, the separate account is not a separate entity from MassMutual, and its operations form a part of MassMutual.

Investment income and any realized gains on separate account assets generally are reflected in the contract value, although treated as accruing to the Company and not to you. As a result, no taxes are due currently on interest, dividends and short or long-term gains earned by the separate account with respect to your contract. The Company may be entitled to certain tax benefits related to the investment of Company assets, including assets of the separate account. 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.

Annuities in General

Annuity contracts are a means of both setting aside money for future needs — usually retirement — and for providing a mechanism to administer the payout of those funds. Congress recognized how important providing for retirement was and created special rules in the IRC for annuities. Simply stated, these rules provide that you will generally not be taxed on the earnings on the money held in your annuity contract until you take the money out. This is referred to as tax deferral.

Diversification

IRC Section 817(h) imposes certain diversification standards on the underlying assets of variable annuity contracts. The IRC provides that a variable annuity contract will not be treated as an annuity contract for any period (and any subsequent period) for which the investments are not, in accordance with regulations prescribed by the United States Treasury Department, adequately diversified. Disqualification of the contract as an annuity contract would result in a loss of tax deferral, meaning the imposition of federal income tax to the owner with respect to earnings under the contract prior to the receipt of payments under the contract. We intend that all investment portfolios underlying the contracts will be managed in such a manner as to comply with these diversification requirements.

Investor Control of Assets

For variable annuity contracts, tax deferral also depends on the insurance company, and not you, having control of the assets held in the separate accounts. You can transfer among the sub-accounts but cannot direct the investments each underlying fund makes. If you have too much investor control of the assets supporting the separate account funds, then you will be taxed on the gain in the contract as it is earned rather than when it is withdrawn. The IRS has provided some guidance on investor control by issuing Revenue Rulings 2003-91 and 2003-92, but some issues remain unclear. One unanswered question is whether an owner will be deemed to own the assets in the contract if a variable contract offers too large a choice of funds in which to invest, and if so, what that number might be. We do not know if the IRS will issue any further guidance on this question. We do not know if any guidance would have a retroactive effect. Consequently, we reserve the right to modify the contract, as necessary, so that you will not be treated as having investor control of the assets held under the separate account.

Non-Qualified Contracts

Your contract is referred to as a non-qualified contract if you do not purchase the contract under a qualified plan such as an Individual Retirement Annuity (IRA), Roth IRA, tax-sheltered annuity plan (TSA or TSA plan), corporate pension and profit-sharing plan (including 401(k) plans and H.R. 10 plans), or a governmental 457(b) deferred compensation plan.

Qualified Contracts

Your contract is referred to as a qualified contract if it is purchased under a qualified retirement plan (qualified plan) such as an Individual Retirement Annuity (IRA), Roth IRA, tax-sheltered annuity plan (TSA or TSA plan), corporate pension and profit-sharing plan (including 401(k) plans and H.R. 10 plans), or a governmental 457(b) deferred compensation plan. Qualified plans are subject to various limitations on eligibility, contributions, transferability and distributions based on the type of plan. The tax rules regarding qualified plans are very complex and will have differing applications depending on individual facts and circumstances. You should consult a tax adviser as to the tax treatment and suitability of such an investment.

Taxation of participants in each qualified plan varies with the type of plan and terms and conditions of each specific plan. Owners, annuitants and beneficiaries are cautioned that benefits under a qualified plan may be subject to the terms and conditions of the plan regardless of the terms and conditions of the contracts issued pursuant to the plan. Some retirement plans are subject to distribution and other requirements that are not incorporated into our administrative procedures. Owners, participants and beneficiaries are responsible for determining that contributions, distributions and other transactions with respect to the contracts comply with applicable law.

Contracts issued under a qualified plan include special provisions restricting contract provisions that may otherwise be available as described in this prospectus. Generally, contracts issued under a qualified plan are not transferable. Various penalty and excise taxes may apply to contributions or distributions made in violation of applicable limitations. Furthermore, certain withdrawal penalties and restrictions may apply to distributions from qualified contracts. See "Taxes – Taxation of Qualified Contracts."

Eligible rollover distributions from an IRA, TSA, qualified plan or governmental 457(b) deferred compensation plan may generally be rolled over into another IRA, TSA, qualified plan or governmental 457(b) deferred compensation plan, if permitted by the plan. These amounts may be transferred directly from one qualified plan or account to another, or as an indirect rollover, in which the plan participant receives a distribution from the qualified plan or account, and reinvests it in the receiving qualified plan or account within 60 days of receiving the distribution.

IRC Section 408(d)(3)(B) provides that an individual is only permitted to make one indirect rollover from an IRA to another IRA in any one year period. The IRS previously applied this limitation on an IRA-by-IRA basis, allowing a taxpayer to make an indirect rollover from an IRA, so long as he or she had not made an indirect rollover from that same IRA within the preceding one year period, even if he or she had made indirect rollovers from a different IRA. Effective for distributions on or after January 1, 2015, the limitation applies on an aggregate basis, meaning that an individual cannot make an indirect rollover from one IRA to another if he or she has made an indirect rollover involving any IRA (including a Roth, SEP, or SIMPLE IRA) within one year. It is important to note that the one rollover per year limitation does not apply to amounts transferred directly between IRAs in a trustee-to-trustee transfer.

On July 6, 1983, the Supreme Court decided in *Arizona Governing Committee v. Norris* that optional annuity benefits provided under an employer's deferred compensation plan could not, under Title VII of the Civil Rights Act of 1964, vary between men and women. The contracts we sell in connection with qualified plans use annuity tables which do not differentiate on the basis of sex. Such annuity tables are also available for use in connection with certain non-qualified deferred compensation plans.

Following are general descriptions of the types of qualified plans with which the contracts may be used. Such descriptions are not exhaustive and are for general informational purposes only. The tax rules regarding qualified plans are very complex and will have differing applications depending on individual facts and circumstances. You should consult a tax adviser as to the tax treatment and suitability of your investment. The contribution limits referenced in the plan descriptions below are the limits for 2020, and may change in subsequent years.

Individual Retirement Annuities

IRC Section 408(b) permits eligible individuals to contribute to an individual retirement program known as an Individual Retirement Annuity (IRA). IRAs are subject to limitations on eligibility, contributions, transferability and distributions. See "Taxes – Taxation of Qualified Contracts." IRA contributions are limited to the lesser of $6,000 or 100% of compensation, and an additional catch-up contribution of $1,000 is available for individuals age 50 and over. Contributions are deductible, unless you are an active participant in a qualified plan and your modified adjusted gross income exceeds certain limits. Contracts issued for use with IRAs are subject to special requirements by the IRC, including the requirement that certain informational disclosure be given to persons desiring to establish an IRA. You should consult a tax adviser as to the tax treatment and suitability of such an investment.

SEP IRAs

IRC Section 408(k) permits certain employers to establish IRAs for employees that qualify as Simplified Employee Pension (SEP) IRAs. Contributions to the plan for the benefit of employees will not be includible in the gross income of the employees until distributed from the plan. SEP IRAs are treated as defined contribution plans for purposes of the limits on employer contributions. Employer contributions cannot exceed the lesser of:

- $57,000; or
- 25% of compensation (a maximum of $285,000 of compensation may be considered).

The employee may treat the SEP account as a traditional IRA and make deductible and non-deductible contributions if the general IRA requirements are met. SEP IRAs are subject to additional restrictions, including on items such as: the form, manner and timing of distributions; transferability of benefits; vesting and nonforfeitability of interests; nondiscrimination in eligibility and participation; and the tax treatment of distributions, withdrawals and surrenders. See "Taxes – Taxation of Qualified Contracts." You should consult a tax adviser as to the tax treatment and suitability of such an investment.

Roth IRAs

IRC Section 408A permits eligible individuals to contribute to a non-deductible IRA, known as a Roth IRA. Roth IRAs are subject to limitations on eligibility, contributions, transferability and distributions. Roth IRA contributions are limited to the lesser of $6,000 or 100% of compensation, and an additional catch-up contribution of $1,000 is available for individuals age 50 or over. The maximums are decreased by any contributions made to a traditional IRA for the same tax year. Lower maximum Roth IRA contribution limits apply to individuals whose modified adjusted gross income exceeds certain limits. Amounts may be rolled over from one Roth IRA to another Roth IRA. Furthermore, an individual may make a rollover contribution from a non-Roth IRA to a Roth IRA, known as a conversion. The individual must pay tax on any portion of the IRA being rolled over that represents income or previously deductible IRA contributions. The determination of taxable income is based on the fair market value of the IRA at the time of the conversion. See "Taxes – Required Minimum Distributions for Qualified Contracts" for information on the determination of the fair market value of an annuity contract that provides additional benefits (such as certain living or death benefits). You should consult a tax adviser as to the tax treatment and suitability of such an investment.

Taxation of Non-Qualified Contracts

You, as the owner of a non-qualified annuity, will generally not be taxed on any increases in the value of your contract until a distribution occurs. There are different rules as to how you are taxed depending on whether the distribution is a withdrawal or an annuity payment.

Withdrawals

The IRC generally treats any withdrawal as first coming from earnings and then from your investment in the contract, if the withdrawal is:

- allocable to investment in the contract made after August 13, 1982 in an annuity contract entered into prior to August 14, 1982; or
- from an annuity contract entered into after August 13, 1982.

The withdrawn earnings are subject to tax as ordinary income.

Annuity Payments

Annuity payments occur as the result of the contract reaching its annuity start date. A portion of each annuity payment is treated as a partial return of your investment in the contract and is not taxed. The remaining portion of the annuity payment is treated as ordinary income. The annuity payment is divided between these taxable and non-taxable portions based on the calculation of an exclusion amount. The exclusion amount for annuity payments based on a fixed annuity option is determined by multiplying the payment by the ratio that the cost basis of the contract (adjusted for any period certain or refund feature) bears to the expected return under the contract. The exclusion amount for annuity payments based on a variable annuity option is determined by dividing the cost basis of the contract (adjusted for any period certain or refund guarantee) by the number of years over which the annuity is expected to be paid. Annuity payments received after you have recovered all of your investment in the contract are fully taxable.

The IRC also provides that any amount received (both annuity payments and withdrawals) under an annuity contract which is included in income may be subject to a tax penalty. The amount of the penalty is an additional tax equal to 10% of the amount that is includible in income. Some withdrawals will be exempt from the penalty. They include any amounts:

(1) paid on or after you reach age 59½;
(2) paid to your beneficiary after you die;
(3) paid if you become totally disabled (as that term is defined in the IRC);
(4) paid in a series of substantially equal periodic payments made annually (or more frequently) for your life or life expectancy or for the joint lives or joint life expectancies of you and your designated beneficiary;
(5) paid under an immediate annuity; or
(6) which come from investment in the contract made before August 14, 1982.

With respect to (4) above, if the series of substantially equal periodic payments is modified before the later of your attaining age 59½ or five years from the date of the first periodic payment, then the tax for the year of the modification is increased by an amount equal to the tax which would have been imposed (the 10% tax penalty), but for the exception, plus interest for the tax years in which the exception was used. The rules governing substantially equal periodic payments are complex. You should consult a tax adviser for more specific information.

Multiple Contracts

The IRC provides that multiple non-qualified annuity contracts which are issued within a calendar year to the same owner by one company or its affiliates are treated as one deferred annuity contract for purposes of determining the tax consequences of any distribution. Such treatment may result in adverse tax consequences including more rapid taxation of the distributed amounts from such combination of contracts. This rule does not apply to immediate annuities.

Tax Treatment of Assignments

An assignment or pledge of a contract may be a taxable event. You should consult a tax adviser if you wish to assign or pledge your contract. Annuity contracts issued after April 22, 1987 that are transferred for less than full and adequate consideration (including gifts) are subject to tax to the extent of gain in the contract. This does not apply to transfers between spouses or certain transfers incident to a divorce under IRC Section 1041.

Distributions After Death of Owner

In order to be treated as an annuity contract for federal income tax purposes, IRC Section 72(s) requires any non-qualified contract to contain certain provisions specifying how your interest in the contract will be distributed in the event of the death of an owner of the contract. Specifically, IRC Section 72(s) requires that a) if any owner dies on or after the annuity start date, but prior to the time the entire interest in the contract has been distributed, the entire interest in the contract will be distributed at least as rapidly as under the method of distribution being used as of the date of such owner's death; and b) if any owner dies prior to the annuity start date, the entire interest in the contract will be distributed within five years after the date of such owner's death. These requirements will be considered satisfied as to any portion of an owner's interest which is payable to or for the benefit of a designated beneficiary and which is distributed over the life of such designated beneficiary or over a period not extending beyond the life expectancy of that beneficiary, provided that such distributions begin within one year of the owner's death. The designated beneficiary refers to a natural person designated by the owner as a beneficiary and to whom ownership of the contract passes by reason of death. However, if the designated beneficiary is the surviving spouse of the deceased owner, the contract may be continued with the surviving spouse as the new owner. The non-qualified contracts contain provisions that are intended to comply with these IRC requirements, although no regulations interpreting these requirements have yet been issued. We intend to review such provisions and modify them if necessary to assure that they comply with the applicable requirements when such requirements are clarified by regulation or otherwise.

Taxation of Qualified Contracts

If you have no cost basis for your interest in a qualified contract, the full amount of any distribution is taxable to you as ordinary income. If you do have a cost basis for all or some of your interest, a portion of the distribution is taxable, generally based on the ratio of your cost basis to your total contract value. Special tax rules may be available for certain distributions from a qualified plan.

IRC Section 72(t) imposes a 10% penalty tax on the taxable portion of any distribution from qualified plans, including contracts issued and qualified under IRC Sections 401 (pension and profit-sharing plans), 403 (TSAs), 408 (IRAs), and 408A (Roth IRAs). Exceptions from the penalty tax are as follows:

(1) distributions made on or after you reach age 59½;

(2) distributions made after your death;

(3) distributions made that are attributable to the employee being disabled as defined in the IRC;

(4) after severance from employment, distributions that are part of a series of substantially equal periodic payments made not less frequently than annually for your life (or life expectancy) or the joint lives (or joint life expectancies) of you and your designated beneficiary (in applying this exception to distributions from IRAs, a severance of employment is not required);

(5) distributions made after severance from employment if you have reached age 55 (not applicable to distributions from IRAs);

(6) distributions made to you up to the amount allowable as a deduction to you under IRC Section 213 for amounts you paid during the taxable year for medical care;

(7) distributions made on account of an IRS levy made on a qualified retirement plan or IRA;

(8) distributions made to an alternate payee pursuant to a qualified domestic relations order (not applicable to distributions from IRAs);

(9) distributions from an IRA for the purchase of medical insurance (as described in IRC Section 213(d)(1)(D)) for you and your spouse and dependents if you received unemployment compensation for at least 12 weeks and have not been re-employed for at least 60 days;

(10) certain qualified reservist distributions;

(11) distributions from an IRA to the extent they do not exceed your qualified higher education expenses (as defined in IRC Section 72(t)(7)) for the taxable year;

(12) distributions from an IRA which are qualified first-time homebuyer distributions (as defined in IRC Section 72(t)(8)); and

(13) distributions which are qualified birth or adoption distributions (as defined in IRC Section 72(t)(2)(H)).

With respect to (4) above, if the series of substantially equal periodic payments is modified before the later of your attaining age 59½ or five years from the date of the first periodic payment, then the tax for the year of the modification is increased by an amount equal to the tax which would have been imposed (the 10% penalty tax) but for the exception, plus interest for the tax years in which the exception was used. The IRS has indicated that a modification will occur if, after the first valuation date, there is:

(1) any addition to the account balance other than gains or losses;

(2) any non-taxable transfer of a portion of the account balance to another retirement plan; or

(3) a rollover by the taxpayer of the amount received resulting in such amount not being taxable.

The rules governing substantially equal periodic payments are complex. You should consult a tax adviser or IRS Revenue Ruling 2002-62 for more specific information.

COVID-19 Relief for Qualified Contracts

The Coronavirus Aid, Relief, and Economic Security Act ("CARES Act" or "Act") provides certain tax relief to qualified plan participants and IRA owners impacted by the COVID-19 pandemic in 2020. These tax relief provisions are intended to make it easier for impacted individuals to access funds from qualified plans if needed. In addition the Act waives the requirement to take a required minimum distribution in 2020.

The Act provides beneficial tax treatment for "coronavirus-related distributions" taken from a qualified plan or IRA. A "coronavirus-related distribution" is defined as a distribution from an eligible retirement plan that is:

- made on or after January 1, 2020 and before December 31, 2020, and
- made to an individual (a) who is diagnosed (or whose spouse or dependent is diagnosed) with the virus SARS-CoV-2 or with the coronavirus disease 2019 (COVID-19) by a test approved by the Centers for Disease Control and Prevention, or (b) who experiences adverse financial consequences as a result of being quarantined, being furloughed or laid off or having work hours reduced due to such virus or disease, being unable to work due to lack of child care due to such virus or disease, closing or reducing hours of a business owned or operated by the individual due to such virus or disease, or other factors as determined by the Secretary of the Treasury.

The aggregate amount of distributions received by an individual, from all qualified plans and IRAs, that may be treated as coronavirus-related distributions may not exceed $100,000.

Under the Act, eligible retirement plans may allow participants to take a coronavirus-related distribution, even if the participant would not otherwise be eligible to take a current distribution from the plan. Coronavirus-related distributions will not be subject to the 10% penalty on premature distributions, nor will such distributions from a qualified plan be subject to the 20% mandatory federal withholding that generally applies to eligible rollover distributions from qualified retirement plans. Instead, such distributions will be subject to withholding at a rate of 10%, unless the individual is eligible to and elects to opt out of federal withholding. The Act allows an individual to include a coronavirus-related distribution in their taxable income ratably over a three year period, and permits the distribution to be recontributed to a qualified plan or IRA within three years.

The Act also waives the requirement to take required minimum distributions from defined contribution plans and IRAs in 2020. The waiver applies to any RMD due from such an arrangement in 2020, including an RMD with respect to the 2019 tax year that the individual was eligible to and chose to defer until 2020. The waiver applies to both lifetime and post-death RMDs, such as those being taken under a beneficiary IRA. If a beneficiary is taking post-death distributions under the "5 year rule" that generally applied to post-death distributions for deaths prior to 2020, the 5-year period will be determined without regard to 2020. An individual does not need to meet any qualification requirements in order to take advantage of the RMD waiver.

Required Minimum Distributions for Qualified Contracts

For qualified contracts other than Roth IRAs, distributions generally must begin no later than April 1st of the calendar year following the later of:

(1) the calendar year in which you attained age 70½, if you attained age 70½ on or before December 31, 2019, otherwise the calendar year in which you attain age 72; or

(2) the calendar year in which you retire.

The date set forth in (2) does not apply to an IRA or to a five percent owner of the employer maintaining the plan. Required distributions generally must be over a period not exceeding your life or life expectancy or the joint lives or joint life expectancies of you and your designated beneficiary. Upon your death, additional distribution requirements are imposed. If your contract is held as a Roth IRA, there are no required minimum distributions during your life. However, upon your death your beneficiary is subject to required minimum distribution requirements. If required minimum distributions are not made, a 50% penalty tax is imposed on the amount that should have been distributed.

These rules were significantly changed under the Setting Every Community Up for Retirement Enhancement (SECURE) Act, enacted in late 2019, and differ for qualified contracts when death occurs after December 31, 2019 versus those where death occurred on or before December 31, 2019 (on or before December 31, 2021 for participants of a governmental plan or a plan maintained pursuant to a collective bargaining agreement).

Where the owner's death occurred on or before December 31, 2019 (on or before December 31, 2021 for participants of a governmental plan or a plan maintained pursuant to a collective bargaining agreement), if the contract had not yet entered the income phase and death occurred after the required beginning date, distributions must be made at least as rapidly as under the method in effect at the time of the owner's death, or over the life or life expectancy of the designated beneficiary. If the contract had not entered the income phase and death occurred before the required beginning date, the remaining interest must be distributed within five years or over the life or life expectancy of the designated beneficiary. If the owner's death occurred after the contract had entered the income phase, distributions must be made at least as rapidly as under the method in effect at the time of the owner's death.

If your death occurs after December 31, 2019 (on or before December 31, 2021 for participants of a governmental plan or a plan maintained pursuant to a collective bargaining agreement) and your designated beneficiary is not an "eligible designated beneficiary" as defined in IRC Section 401(a)(9), the remaining interest must be distributed within ten years, regardless of whether your death occurs before or after your required beginning date or whether your contract had entered the income phase. If your designated beneficiary is considered an eligible designated beneficiary, the remaining interest must be distributed within ten years or over the life or life expectancy of the designated beneficiary.

If your death occurs after December 31, 2019 (on or before December 31, 2021 for participants of a governmental plan or a plan maintained pursuant to a collective bargaining agreement) and you do not have a designated beneficiary (including where your estate or certain trusts are the beneficiary), the pre-2019 distribution rules generally apply. If your contract has not yet entered the income phase and death occurs after your required beginning date, distributions must be made at least as rapidly as under the method in effect at the time of your death. If the contract has not yet entered the income phase and your death occurs before your required beginning date, the remaining interest must be distributed within five years. If your death occurs after your contract has entered the income phase, distributions must be made at least as rapidly as under the method in effect at the time of your death.

The Regulations under IRC Section 401(a)(9) include a provision that could increase the dollar amount of required minimum distributions for individuals who fund their IRA or qualified retirement plan with an annuity contract. During the accumulation phase of the annuity contract, Treasury Regulations Section 1.401(a)(9)-6, Q&A-12 requires that individuals add the actuarial present value of any additional benefits provided under the annuity (such as certain living or death benefits) to the dollar amount credited to the owner or beneficiary under the contract in order to determine the fair market value of the contract. A larger fair market value will result in the calculation of a higher required minimum distribution amount. You should consult a tax adviser to determine how this may impact your specific circumstances.

Partial Annuitization

The ability to apply only a portion of your contract value to an annuity option is commonly referred to as "partial annuitization" or "partially annuitizing." Federal tax law provides favorable tax treatment of partial annuitization of a non-qualified annuity contract under certain circumstances. There may be tax consequences, possibly significant, to partially annuitizing a qualified contract. **You should consult a tax adviser before electing to partially annuitize your contract.**

Partial Annuitization of Non-Qualified Contracts

As part of the Small Business Jobs Act of 2010, IRC Section 72 was amended to provide that if part of an annuity contract's value is applied to an annuity option that provides payments for one or more lives or for a period of at least ten years, the portion of the contract that is annuitized will be treated as a separate contract and annuity payments received as a result of the partial annuitization will be treated as amounts received as an annuity instead of withdrawals, and given exclusion ratio treatment. The exclusion ratio is calculated by allocating the current investment in the contract between the amount applied to the annuity option and the remaining portion of the original contract.

If the annuity option you elect does not meet one of the two above-described criteria, we will report all payments from your contract, whether from the annuitized or the deferred portions of the contract value, to the IRS as a distribution with the taxable amount not determined beginning with the date of the partial annuitization. It is your responsibility to document to the IRS how much, if any, of a distribution is allocable to cost basis.

Partial Annuitization of Qualified Contracts

If you elect to apply only a portion of your qualified annuity contract value to an annuity option, we will treat the annuitized and non-annuitized portions of your contract as separate contracts for purposes of applying the required minimum distribution (RMD) rules of IRC Section 401(a)(9) and the regulations thereunder. The IRS has not yet published guidance on the computation of the RMD for payments received as the result of a partial annuitization. If the IRS were to take the position that the annuitized and non-annuitized portions are not separate contracts for RMD purposes, your distributions may not be sufficient to meet your RMD in the year of the partial annuitization and subsequent years. Failure to satisfy the RMD rules in any year could subject you to a penalty equal to 50% of the amount that should have been distributed but was not. If your qualified contract contains after-tax money (i.e. has a cost basis), we will allocate that cost basis pro-rata between the annuitized and non-annuitized portions. Because the IRS has not published guidance as to what portion of any payment made under the annuity option represents a non-taxable return of cost basis and what portion is taxable, this treatment may understate or overstate income in any given year. If you misstate your income, the IRS may impose tax penalties and interest. You should consult a tax or legal adviser to discuss these risks before electing a partial annuitization of your qualified deferred annuity contract.

Taxation of Death Benefit Proceeds

Amounts may be distributed from a contract because of your death or the death of the annuitant. Generally, such amounts are includible in the income of the recipient as follows:

- if distributed in a lump sum, they are taxed in the same manner as a full withdrawal of the contract; or
- if distributed under a payout option, they are taxed in the same way as annuity payments.

Section 1035 Tax Free Exchanges

IRC Section 1035 provides that a life insurance, endowment, or annuity contract may be exchanged for an annuity contract on a tax free basis. When this type of exchange occurs, the gain in the original contract is preserved in the new contract by transferring the cost basis under the original contract to the new contract. The IRS has provided guidance on the partial exchange of an annuity contract for another annuity contract. According to the guidance, partial exchanges occurring on or after October 24, 2011 will be tax free if no distribution takes place from either contract within 180 days after the exchange. If a distribution occurs within 180 days after the exchange, the IRS will apply general tax principles to determine the tax treatment of the transfer. The limitation on distributions within 180 days does not apply to annuity payments that are based on life expectancy or on a period certain of ten or more years. You should consult a tax adviser before entering into any 1035 exchange.

Partial exchanges which occurred prior to October 24, 2011 were subject to more restrictive guidance. You should consult a tax adviser if you have questions regarding the taxation of a prior exchange.

Beginning January 1, 2010, the Pension Protection Act of 2006 permits the exchange of an annuity contract for a qualified long-term care contract to qualify as a tax free 1035 exchange. However, if an annuity contract has entered the income phase, there is uncertainty and a lack of guidance regarding whether the exchange can qualify. Therefore, if an annuity contract has entered the income phase and the contract or the resulting annuity payments are exchanged for a qualified long-term care contract, we will not treat that as a tax free 1035 exchange.

The IRS has also issued guidance allowing a beneficiary of a non-qualified annuity contract to enter into a 1035 exchange of the death benefit for a new annuity contract, provided that the new contract will be administered as if the owner is deceased for purposes of the death benefit requirements of IRC Section 72(s). In order to allow the death benefit under a non-qualified annuity contract to be exchanged, we may require additional documentation from the issuer of the new contract, in order to ensure that this requirement is met.

Income Tax Reporting and Withholding

Federal law requires that we file an information return on Form 1099-R with the IRS (with a copy to you) reporting any taxable amounts paid to you under the annuity contract. By January 31st of the calendar year following the year of any payment(s), we will issue the Form 1099-R to the owner of the annuity contract. Following the death of the owner the Form 1099-R will be sent to each beneficiary who receives a payment under the contract.

The portion of any distribution that is includible in the gross income of the owner is subject to federal income tax withholding. The amount of the withholding depends on the type of distribution. Withholding for periodic payments is at the same rate as wages and at the rate of 10% from non-periodic payments. However, the owner, in most cases, may elect not to have taxes withheld or to have withholding done at a different rate (but not lower). Distributions from certain retirement plans, excluding IRAs, that are not directly rolled over to another eligible retirement plan or IRA, are subject to a mandatory 20% withholding. The 20% withholding requirement generally does not apply to:

- a series of substantially equal payments made at least annually for:
  - the life or life expectancy of the owner, or joint and last survivor expectancy of the owner and a designated beneficiary; or
  - for a specified period of ten years or more;
- distributions which are required minimum distributions; or
- hardship distributions from a 401(k) plan or a tax-sheltered annuity.

You should consult a tax adviser regarding withholding requirements.

Generation Skipping Transfer Tax Withholding

Under certain circumstances, the IRC may impose a generation skipping transfer tax when all or part of an annuity contract 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 contract, or from any applicable payment, and pay it directly to the IRS.

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 tax regulations, the taxable portion of any distribution from a non-qualified annuity contract – including surrenders, withdrawals, and annuity payments – is included in net investment income. Net investment income also includes the gain from the sale of a non-qualified annuity 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 contract.

Non-Resident Aliens and Foreign Entities

Generally, a distribution from a contract to a non-resident alien or foreign entity is subject to federal tax withholding at a rate of 30% of the amount of 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 form), providing us with:

- proof of residency (in accordance with IRS requirements); and
- the applicable individual 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 occur with respect to certain entity owners (including foreign financial institutions and non-financial foreign entities (such as corporations, partnerships, and trusts)) at a 30% rate without regard to lower treaty rates.

Civil Unions and Domestic Partnerships

Parties to a civil union or domestic partnership are not treated as spouses under federal law. Consequently, certain transactions, such as a change of ownership or continuation of the contract after death, may be taxable to those individuals. You should consult a tax adviser for more information on this subject.

Non-Natural Owner

When a non-qualified contract is owned by a non-natural person (e.g., a corporation, limited liability company, partnership, trust or certain other entities) the contract will generally not be treated as an annuity for tax purposes. This means that gain in the contract will be taxed each year while the contract is in the accumulation phase. This treatment is not generally applied to a contract held by a trust or other entity as an agent for a natural person. If any beneficiary (including a contingent beneficiary) of a trust is a non-natural person, the contract will not be treated as owned by an agent for a natural person, and gain in the contract will be taxed annually, whether or not the trust is a grantor trust for income tax purposes. This treatment also does not apply to a contract that qualifies as an immediate annuity. Before purchasing a contract to be owned by a non-natural person or changing ownership on an existing contract that will result in it being owned by a non-natural person, you should consult a tax adviser to determine the tax impact.

Other Information

Distribution

The contracts are no longer for sale to the public. Pursuant to separate underwriting agreements with the Company, on its own behalf and on behalf of the Separate Account, MML Investors Services, LLC (MMLIS), a subsidiary of MassMutual, serves as principal underwriter of the contracts sold by its registered representatives, and MML Strategic Distributors, LLC (MSD), a subsidiary of MassMutual, serves as principal underwriter of the contracts 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). Commissions for sales of the contract by MMLIS registered representatives are paid on behalf of MMLIS to its registered representatives. Commissions for sales of the contract by registered representatives of other broker-dealers are paid on behalf of MSD to those broker-dealers. MMLIS and MSD also receive compensation for their actions as principal underwriters of the contracts. We also pay expense allowances in connection with the sales of the contracts. The maximum commission payable for the contract is 8.63% of purchase payments made to a contract and/or up to 2.4% of contract value annually.

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. 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 contract 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 contract by their registered representatives.

Additional Compensation Paid to Certain Broker-Dealers

We and MSD make additional commission payments to certain broker-dealers in the form of asset-based payments and sales-based payments. We also make cash payments and non-cash payments to certain broker-dealers. The asset-based and sales-based payments are made to participate in those broker-dealers' preferred provider programs or marketing support programs, or to otherwise promote the contract. Asset-based payments are based on the value of the assets in the MassMutual contracts sold by that broker-dealer. Sales-based payments are paid on each sale of the contract and each subsequent purchase payment applied to the contract. Cash payments are made to attend sales conferences and educational seminars sponsored by certain broker-dealers. Non-cash payments include various promotional items. **For a list of the broker-dealers to whom we currently pay additional compensation for selling the contract, visit www.MassMutual.com/legal/compensation-arrangements or call our Service Center at the number shown on page 1 of this prospectus.**

The additional compensation arrangements described in the preceding paragraphs are not offered to all broker-dealers and the terms of such arrangements may differ among broker-dealers. Some broker-dealers may receive two or more of these payments. Such payments may give us greater access to the registered representatives of the broker-dealers that receive such compensation or may influence the way that a broker-dealer markets the contract. Any such compensation will be paid by MSD or us and will not result in any additional direct charge to you.

The additional compensation arrangements may provide a registered representative with an incentive to sell the contract over other available variable annuity contracts whose issuers do not provide such compensation or who provide lower levels of such compensation. 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 your broker-dealer or registered representative to find out more information about the compensation they may receive in connection with your purchase of a contract. You may want to take these compensation arrangements into account when evaluating any recommendations regarding the contract.

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 and other payments that we receive from certain funds to help us make these cash and non-cash payments.

Special Arrangements

For certain group or sponsored arrangements there may be expense savings that could be passed on to the customer because our cost for sales, administration, and mortality generally vary with the size of the customer. We will consider factors such as the size of the group, the nature of the sale, the expected purchase payment volume, and other factors we consider significant in determining whether to reduce charges. Subject to applicable state laws and regulations, we reserve the right to reduce or waive the administrative charge, or any other charge that is appropriate to reflect any expense savings. We will make any reductions according to our rules in effect when an application for a contract is approved. We may change these rules from time to time. Any reduction in charges will reflect differences in costs or services, and will not be unfairly discriminatory.

We reserve the right to modify or terminate this arrangement.

Assignment

You can assign the contract at any time during your lifetime. We will not be bound by the assignment until we receive, in good order, written notice of the assignment. We will not be liable for any payment or other action we take in accordance with the contract before we receive notice of the assignment. You may be subject to tax consequences if you assign your contract. We are not responsible for the validity of an assignment.

If the contract is issued pursuant to a qualified plan, there may be limitations on your ability to assign the contract. If you assign your contract, your rights may only be exercised with the consent of the assignee of record.

Unclaimed Property

Every state has some form of unclaimed property law that imposes varying legal and practical obligations on insurers and, indirectly, on contract owners, beneficiaries, and any other payees of proceeds from a contract. 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 Service Center.

Voting Rights

We are the legal owner of the fund shares. When a fund solicits proxies in conjunction with a vote of shareholders, we are required to obtain, from you and other owners, instructions as to how to vote those shares. When we receive those instructions, we will vote all of the shares for which we have not received voting instructions, in proportion to those instructions. This will also include any shares that we own on our own behalf. This may result in a small number of owners controlling the outcome of the vote. If we determine that we are no longer required to comply with the above, we will vote the shares in our own right.

During the accumulation phase of your contract, we determine the number of shares you may vote by dividing your contract value in each fund, if any, by $100. Fractional shares are counted. During the income phase or after the annuitant dies, we determine the number of shares you may vote based on our liability for future variable monthly annuity payments.

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 in the next available annual or semi-annual report.

Changes to the Contract

We reserve the right to amend the contract to meet the requirements of applicable federal or state laws or regulations, or as otherwise provided in the contract. We will notify you by written notice of such amendments.

Suspension of Payments or Transfers

We may be required to suspend or postpone transfers from the funds or payments from the funds for withdrawals or death benefits during any period when:

- the NYSE is closed (other than customary weekend and holiday closings);
- trading on the NYSE is restricted;
- 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
- during any other period when the SEC, by order, so permits for your protection.

We reserve the right to defer payment for a withdrawal from The Fixed Account and a Long-Term Guarantee Fixed Account for the period permitted by law but not for more than six months.

If, pursuant to the SEC's rules, a money market fund (Fund) suspends payment of redemption proceeds in connection with a liquidation of the Fund, we will delay payment of any transfer, withdrawal or death benefit from the applicable money market sub-account until the Fund is liquidated.

Termination of Contract

We will terminate your contract upon the occurrence of any of the following events:

- the date of the last annuity payment if you have applied your entire contract value to an annuity option;

- the date payment is made of the entire contract value;
- the date of the last payment upon death to the last beneficiary; or
- the date your contract is returned under the right to examine contract provision.

In addition, in most states we reserve the right to terminate your contract if no purchase payment has been made for at least two consecutive years measured from the date we received the last purchase payment; and each of the following amounts is less than $2,000 on the date we send notice of our election to terminate your contract: your contract value less any premium tax deducted; your contract withdrawal value; and the sum of all purchase payments made into your contract adjusted for any partial withdrawals.

Anti-Money Laundering

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

Our Ability to Make Payments Under the Contract

Our Claims Paying Ability

Our "claims-paying ability" is our ability to meet any contractual obligation we have to make payments under the contract. These amounts include death benefits, annuity payments, withdrawals and any amounts paid out through the contract's additional features. 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 the contract. For this reason, you should consider our financial strength and claims-paying ability to meet our obligations under the contract when purchasing a contract and making investment decisions.

Obligations of Our Separate Account

Contract value you allocate to the funds is maintained in our separate account. Any withdrawals or transfers of contract value from the funds will be taken from the separate account. We cannot use the separate account's assets to pay any of our liabilities other than those arising from the contracts. See "Investment Choices – The Separate Account."

Obligations of Our General Account

Contract value you allocate to the fixed accounts is maintained in our general account. The assets of our general 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 account assets for many purposes including to pay death benefits, annuity payments, withdrawals and transfers from the fixed accounts and to pay amounts we provide to you through an elected additional feature that are in excess of your contract value allocated to the separate account.

Because of exemptive and exclusionary provisions, the general account, unlike the separate account, has not been registered under the 1933 Act or the 1940 Act. Because of this, the general account is generally not subject to the provisions of the 1933 Act or the 1940 Act. However, disclosures regarding the general account are subject to certain generally applicable provisions of the federal securities laws that require complete and accurate statements in prospectuses.

Our 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 Service Center at the number or address on page 1 of this prospectus.

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 contract.

For more information regarding the Company's litigation and other legal proceedings, see the notes to the Company's financial statements contained within the SAI.

Table of Contents of the Statement of Additional Information

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To obtain a free copy of the Statement of Additional Information, return this request form to the address shown below or call our Service Center at (800) 272-2216.

To: MassMutual Document Management Services – Annuities W360
P.O. Box 9067
Springfield, MA 01102-9067

Please send me the **Statement of Additional Information** for MassMutual Transitions® (AN8300SAI).

Name ______________________________

Address ______________________________

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City ____________ State ____________ Zip ____________

Telephone ______________________________

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Appendix A

Condensed Financial Information

The following schedules include accumulation unit values for the periods indicated. We have extracted some of this data from the separate account's audited financial statements. You should read this information in conjunction with the separate account's audited financial statements and related notes that are included in the Statement of Additional Information.

Accumulation Unit Values – Custom Plan

Sub-Account	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2013	Dec. 31, 2012	Dec. 31, 2011	Dec. 31, 2010	Value at Inception Date
Fidelity® VIP Contrafund®	$42.16	$32.34	$34.88	$28.89	$27.00	$27.08	$24.42	$18.78	$16.29	$16.87	$10.00[a]
Invesco Oppenheimer V.I. Capital Appreciation	29.72	22.03	23.59	18.78	19.38	18.90	16.53	12.86	11.38	11.62	10.00[a]
Invesco Oppenheimer V.I. Conservative Balanced[h]	17.70	15.21	16.22	14.99	14.37	14.39	13.43	11.98	10.76	10.79	10.00[a]
Invesco Oppenheimer V.I. Discovery Mid Cap Growth	33.67	24.39	26.22	20.55	20.27	19.20	18.32	13.60	11.79	11.78	10.00[a]
Invesco Oppenheimer V.I. Global	36.97	28.32	32.94	24.33	24.54	23.83	23.52	18.65	15.53	17.10	10.00[a]
Invesco Oppenheimer V.I. Global Strategic Income	22.10	20.14	21.27	20.20	19.14	19.77	19.41	19.62	17.45	17.46	10.00[a]
Invesco Oppenheimer V.I. Government Money[j]	10.49	10.41	10.37	10.43	10.53	10.63	10.73	10.83	10.93	11.03	10.00[a]
Invesco Oppenheimer V.I. High Income[h][i]	—	—	—	—	—	—	—	—	3.99	4.13	10.00[a]
Invesco Oppenheimer V.I. International Growth	28.48	22.36	28.01	22.39	23.09	22.54	24.52	19.67	16.25	17.67	10.00[a]
Invesco Oppenheimer V.I. Main Street	31.55	24.12	26.43	22.82	20.64	20.17	18.39	14.09	12.17	12.29	10.00[a]
Invesco V.I. Diversified Dividend	13.91	11.22	12.26	11.40	10.02	9.91	8.87	6.83	5.81	5.99	10.00[a]
Invesco V.I. Health Care	35.65	27.16	27.18	23.69	27.01	26.43	22.30	16.02	13.38	12.99	10.00[a]
Invesco V.I. Technology	31.73	23.57	23.91	17.86	18.17	17.17	15.61	12.59	11.42	12.15	10.00[a]
MML Aggressive Allocation	21.30	17.35	19.07	16.21	15.07	15.35	14.64	11.60	10.12	10.41	10.00[b]
MML Asset Allocation[g]	—	—	—	—	—	—	—	—	13.63	13.53	10.00[c]
MML Balanced Allocation	17.80	15.40	16.27	14.73	14.01	14.20	13.61	12.00	10.78	10.69	10.00[b]
MML Blend	29.64	24.65	26.02	22.79	21.02	21.21	19.29	16.19	14.51	13.98	10.00[a]
MML Blue Chip Growth	45.84	35.64	35.32	26.17	26.19	23.80	22.01	15.72	13.42	13.36	10.00[a]
MML Concentrated Growth[g]	—	—	—	—	—	—	—	—	10.11	10.28	10.00[a]
MML Conservative Allocation	17.29	15.15	15.85	14.59	13.93	14.11	13.55	12.29	11.14	10.96	10.00[b]
MML Emerging Growth[g]	—	—	—	—	—	—	—	—	10.45	11.29	10.00[a]
MML Enhanced Index Core Equity[g]	—	—	—	—	—	—	—	—	12.41	12.21	10.00[a]
MML Equity	27.51	22.06	24.74	21.57	19.34	20.22	18.30	13.86	12.06	12.65	10.00[a]
MML Equity Income	29.10	23.23	25.88	22.46	19.10	20.71	19.44	15.11	13.00	13.23	10.00[a]
MML Equity Index	33.84	26.10	27.68	23.03	20.86	20.85	18.60	14.24	12.45	12.36	10.00[a]
MML Focused Equity	25.41	19.77	19.77	16.41	14.07	15.64	14.10	10.34	—	—	10.00[d]
MML Foreign	17.22	15.36	18.44	15.29	15.22	16.03	17.40	14.54	12.33	13.81	10.00[a]

Sub-Account	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2013	Dec. 31, 2012	Dec. 31, 2011	Dec. 31, 2010	Value at Inception Date
MML Fundamental Growth[*]	$24.82	$18.80	$18.85	$14.95	$14.58	$13.89	$12.66	$ 9.68	$ —	$ —	$10.00[d]
MML Fundamental Value	19.12	15.76	17.79	15.65	13.97	14.57	13.25	10.25	—	—	10.00[d]
MML Global	21.96	16.97	18.94	15.40	14.45	14.79	14.37	11.32	9.24	9.74	10.00[a]
MML Growth & Income	34.51	26.38	28.09	22.93	21.28	21.37	19.41	14.78	12.49	12.84	10.00[c]
MML Growth Allocation	19.94	16.61	18.01	15.66	14.70	14.95	14.27	11.74	10.35	10.50	10.00[b]
MML High Yield	17.87	16.13	16.88	15.80	13.72	14.04	14.08	12.85	11.13	10.62	10.00[e]
MML Income & Growth	26.04	21.13	24.15	20.76	18.01	18.19	16.82	13.62	12.29	11.74	10.00[a]
MML Inflation-Protected and Income	15.54	14.49	14.82	14.49	13.91	14.25	13.91	15.38	14.53	12.92	10.00[c]
MML International Equity	11.01	8.94	11.88	9.21	8.61	9.16	—	—	—	—	10.00[f]
MML Large Cap Growth	30.85	23.60	24.38	18.43	18.68	17.94	16.54	12.50	10.90	11.42	10.00[a]
MML Managed Bond	18.91	17.39	17.63	17.00	16.70	16.99	16.11	16.54	15.78	14.85	10.00[a]
MML Managed Volatility	20.28	18.30	19.38	17.95	17.47	17.13	16.56	14.19	12.66	13.30	10.00[a]
MML Mid Cap Growth	56.35	43.33	44.72	36.17	34.35	32.48	28.95	21.38	18.97	19.39	10.00[a]
MML Mid Cap Value	41.14	32.16	37.32	33.73	27.63	28.31	24.49	18.96	16.40	16.66	10.00[a]
MML Moderate Allocation	18.78	15.99	17.08	15.21	14.37	14.60	13.96	11.98	10.69	10.69	10.00[b]
MML Short-Duration Bond	11.31	10.96	10.92	10.78	10.61	10.64	10.62	10.65	10.46	10.22	10.00[e]
MML Small Cap Equity	33.03	26.37	29.64	26.16	22.34	23.90	21.52	15.40	13.13	13.55	10.00[a]
MML Small Cap Growth Equity	44.79	33.66	35.73	29.37	26.30	27.97	26.67	18.13	16.14	17.19	10.00[a]
MML Small Cap Index[g]	—	—	—	—	—	—	—	—	15.99	16.05	10.00[a]
MML Small/Mid Cap Value	38.26	32.11	38.11	33.91	27.37	29.25	26.98	19.71	16.71	18.24	10.00[c]
MML Total Return Bond	11.39	10.58	10.72	10.53	10.39	10.50	10.15	10.44	—	—	10.00[d]
MML U.S. Government Money Market	9.42	9.35	9.32	9.37	9.45	9.54	9.63	9.73	9.82	9.91	10.00[b]
Oppenheimer Global Multi-Alternatives[l]	—	9.22	9.63	9.70	9.46	9.94	—	—	—	—	10.00[f]
PIMCO CommodityRealReturn® Strategy	5.70	5.16	6.08	6.01	5.28	7.17	8.90	10.53	10.12	11.05	10.00[k]
VY® Clarion Global Real Estate	17.53	14.23	15.74	14.38	14.43	14.75	13.08	12.73	10.23	10.91	10.00[k]

Accumulation Unit Values – Package I

Sub-Account	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2013	Dec. 31, 2012	Dec. 31, 2011	Dec. 31, 2010	Value at Inception Date
Fidelity® VIP Contrafund®	$42.16	$32.34	$34.88	$28.89	$27.00	$27.08	$24.42	$18.78	$16.29	$16.87	$ 10.00[a]
Invesco Oppenheimer V.I. Capital Appreciation	29.72	22.03	23.59	18.78	19.38	18.90	16.53	12.86	11.38	11.62	10.00[a]
Invesco Oppenheimer V.I. Conservative Balanced[h]	17.70	15.21	16.22	14.99	14.37	14.39	13.43	11.98	10.76	10.79	10.00[a]
Invesco Oppenheimer V.I. Discovery Mid Cap Growth	33.67	24.39	26.22	20.55	20.27	19.20	18.32	13.60	11.79	11.78	10.00[a]
Invesco Oppenheimer V.I. Global	36.97	28.32	32.94	24.33	24.54	23.83	23.52	18.65	15.53	17.10	10.00[a]
Invesco Oppenheimer V.I. Global Strategic Income	22.10	20.14	21.27	20.20	19.14	19.77	19.41	19.62	17.45	17.46	10.00[a]
Invesco Oppenheimer V.I. Government Money[j]	10.49	10.41	10.37	10.43	10.53	10.63	10.73	10.83	10.93	11.03	10.00[a]

Sub-Account	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2013	Dec. 31, 2012	Dec. 31, 2011	Dec. 31, 2010	Value at Inception Date
Invesco Oppenheimer V.I. High Income[h][i]	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ 3.99	$ 4.13	$ 10.00[a]
Invesco Oppenheimer V.I. International Growth	28.48	22.36	28.01	22.39	23.09	22.54	24.52	19.67	16.25	17.67	10.00[a]
Invesco Oppenheimer V.I. Main Street	31.55	24.12	26.43	22.82	20.64	20.17	18.39	14.09	12.17	12.29	10.00[a]
Invesco V.I. Diversified Dividend	13.91	11.22	12.26	11.40	10.02	9.91	8.87	6.83	5.81	5.99	10.00[a]
Invesco V.I. Health Care	35.65	27.16	27.18	23.69	27.01	26.43	22.30	16.02	13.38	12.99	10.00[a]
Invesco V.I. Technology	31.73	23.57	23.91	17.86	18.17	17.17	15.61	12.59	11.42	12.15	10.00[a]
MML Aggressive Allocation	21.30	17.35	19.07	16.21	15.07	15.35	14.64	11.60	10.12	10.41	10.00[b]
MML Asset Allocation[g]	—	—	—	—	—	—	—	—	13.63	13.53	10.00[c]
MML Balanced Allocation	17.80	15.40	16.27	14.73	14.01	14.20	13.61	12.00	10.78	10.69	10.00[b]
MML Blend	29.64	24.65	26.02	22.79	21.02	21.21	19.29	16.19	14.51	13.98	10.00[a]
MML Blue Chip Growth	45.84	35.64	35.32	26.17	26.19	23.80	22.01	15.72	13.42	13.36	10.00[a]
MML Concentrated Growth[g]	—	—	—	—	—	—	—	—	10.11	10.28	10.00[a]
MML Conservative Allocation	17.29	15.15	15.85	14.59	13.93	14.11	13.55	12.29	11.14	10.96	10.00[b]
MML Emerging Growth[g]	—	—	—	—	—	—	—	—	10.45	11.29	10.00[a]
MML Enhanced Index Core Equity[g]	—	—	—	—	—	—	—	—	12.41	12.21	10.00[a]
MML Equity	27.51	22.06	24.74	21.57	19.34	20.22	18.30	13.86	12.06	12.65	10.00[a]
MML Equity Income	29.10	23.23	25.88	22.46	19.10	20.71	19.44	15.11	13.00	13.23	10.00[a]
MML Equity Index	33.84	26.10	27.68	23.03	20.86	20.85	18.60	14.24	12.45	12.36	10.00[a]
MML Focused Equity	25.41	19.77	19.77	16.41	14.07	15.64	14.10	10.34	—	—	10.00[d]
MML Foreign	17.22	15.36	18.44	15.29	15.22	16.03	17.40	14.54	12.33	13.81	10.00[a]
MML Fundamental Growth[*]	24.82	18.80	18.85	14.95	14.58	13.89	12.66	9.68	—	—	10.00[d]
MML Fundamental Value	19.12	15.76	17.79	15.65	13.97	14.57	13.25	10.25	—	—	10.00[d]
MML Global	21.96	16.97	18.94	15.40	14.45	14.79	14.37	11.32	9.24	9.74	10.00[a]
MML Growth & Income	34.51	26.38	28.09	22.93	21.28	21.37	19.41	14.78	12.49	12.84	10.00[c]
MML Growth Allocation	19.94	16.61	18.01	15.66	14.70	14.95	14.27	11.74	10.35	10.50	10.00[b]
MML High Yield	17.87	16.13	16.88	15.80	13.72	14.04	14.08	12.85	11.13	10.62	10.00[e]
MML Income & Growth	26.04	21.13	24.15	20.76	18.01	18.19	16.82	13.62	12.29	11.74	10.00[a]
MML Inflation-Protected and Income	15.54	14.49	14.82	14.49	13.91	14.25	13.91	15.38	14.53	12.92	10.00[c]
MML International Equity	11.01	8.94	11.88	9.21	8.61	9.16	—	—	—	—	10.00[f]
MML Large Cap Growth	30.85	23.60	24.38	18.43	18.68	17.94	16.54	12.50	10.90	11.42	10.00[a]
MML Managed Bond	18.91	17.39	17.63	17.00	16.70	16.99	16.11	16.54	15.78	14.85	10.00[a]
MML Managed Volatility	20.28	18.30	19.38	17.95	17.47	17.13	16.56	14.19	12.66	13.30	10.00[a]
MML Mid Cap Growth	56.35	43.33	44.72	36.17	34.35	32.48	28.95	21.38	18.97	19.39	10.00[a]
MML Mid Cap Value	41.14	32.16	37.32	33.73	27.63	28.31	24.49	18.96	16.40	16.66	10.00[a]
MML Moderate Allocation	18.78	15.99	17.08	15.21	14.37	14.60	13.96	11.98	10.69	10.69	10.00[b]
MML Short-Duration Bond	11.31	10.96	10.92	10.78	10.61	10.64	10.62	10.65	10.46	10.22	10.00[e]
MML Small Cap Equity	33.03	26.37	29.64	26.16	22.34	23.90	21.52	15.40	13.13	13.55	10.00[a]

Sub-Account	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2013	Dec. 31, 2012	Dec. 31, 2011	Dec. 31, 2010	Value at Inception Date
MML Small Cap Growth Equity	$44.79	$33.66	$35.73	$29.37	$26.30	$27.97	$26.67	$18.13	$16.14	$17.19	$ 10.00[(a)]
MML Small Cap Index[(g)]	—	—	—	—	—	—	—	—	15.99	16.05	10.00[(a)]
MML Small/Mid Cap Value	38.26	32.11	38.11	33.91	27.37	29.25	26.98	19.71	16.71	18.24	10.00[(c)]
MML Total Return Bond	11.39	10.58	10.72	10.53	10.39	10.50	10.15	10.44	—	—	10.00[(d)]
MML U.S. Government Money Market	9.42	9.35	9.32	9.37	9.45	9.54	9.63	9.73	9.82	9.91	10.00[(b)]
Oppenheimer Global Multi-Alternatives[(l)]	—	9.22	9.63	9.70	9.46	9.94	—	—	—	—	10.00[(f)]
PIMCO CommodityRealReturn® Strategy	5.70	5.16	6.08	6.01	5.28	7.17	8.90	10.53	10.12	11.05	10.00[(m)]
VY® Clarion Global Real Estate	17.53	14.23	15.74	14.38	14.43	14.75	13.08	12.73	10.23	10.91	10.00[(m)]

Accumulation Unit Values – Package II

Sub-Account	Dec. 31, 2019	Dec. 31, 2018	Dec 31, 2017	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2013	Dec. 31, 2012	Dec. 31, 2011	Dec. 31, 2010	Value at Inception Date
Fidelity® VIP Contrafund®	$39.64	$30.52	$33.03	$27.45	$25.75	$25.91	$23.45	$18.10	$15.75	$16.37	$10.00[(a)]
Invesco Oppenheimer V.I. Capital Appreciation	27.94	20.78	22.34	17.84	18.48	18.08	15.87	12.39	11.00	11.28	10.00[(a)]
Invesco Oppenheimer V.I. Conservative Balanced[(h)]	16.65	14.35	15.36	14.24	13.71	13.77	12.89	11.54	10.41	10.47	10.00[(a)]
Invesco Oppenheimer V.I. Discovery Mid Cap Growth	31.66	23.01	24.83	19.53	19.33	18.37	17.59	13.11	11.40	11.43	10.00[(a)]
Invesco Oppenheimer V.I. Global	34.77	26.72	31.19	23.12	23.40	22.81	22.59	17.97	15.02	16.59	10.00[(a)]
Invesco Oppenheimer V.I. Global Strategic Income	20.78	19.00	20.14	19.20	18.25	18.92	18.64	18.91	16.87	16.95	10.00[(a)]
Invesco Oppenheimer V.I. Government Money[(j)]	9.86	9.82	9.82	9.91	10.04	10.17	10.30	10.43	10.57	10.71	10.00[(a)]
Invesco Oppenheimer V.I. High Income[(h)(i)]	—	—	—	—	—	—	—	—	3.86	4.01	10.00[(a)]
Invesco Oppenheimer V.I. International Grow	26.78	21.09	26.52	21.27	22.02	21.57	23.55	18.95	15.71	17.14	10.00[(a)]
Invesco Oppenheimer V.I. Main Street	29.67	22.75	25.03	21.69	19.68	19.30	17.66	13.58	11.77	11.93	10.00[(a)]
Invesco V.I. Diversified Dividend	13.07	10.59	11.61	10.83	9.56	9.49	8.52	6.58	5.62	5.81	10.00[(a)]
Invesco V.I. Health Care	33.52	25.63	25.74	22.51	25.76	25.29	21.41	15.43	12.93	12.60	10.00[(a)]
Invesco V.I. Technology	29.83	22.24	22.64	16.97	17.32	16.43	14.99	12.13	11.05	11.79	10.00[(a)]
MML Aggressive Allocation	20.43	16.70	18.41	15.71	14.66	14.98	14.33	11.40	9.98	10.30	10.00[(b)]
MML Asset Allocation[(g)]	—	—	—	—	—	—	—	—	13.22	13.18	10.00[(c)]
MML Balanced Allocation	17.08	14.82	15.71	14.28	13.63	13.86	13.33	11.79	10.63	10.58	10.00[(b)]
MML Blend	27.87	23.26	24.64	21.65	20.05	20.29	18.52	15.60	14.03	13.56	10.00[(a)]
MML Blue Chip Growth	43.10	33.63	33.44	24.87	24.97	22.77	21.14	15.15	12.97	12.97	10.00[(a)]
MML Concentrated Growth[(g)]	—	—	—	—	—	—	—	—	9.78	9.98	10.00[(a)]
MML Conservative Allocation	16.58	14.58	15.31	14.15	13.55	13.78	13.28	12.08	10.99	10.85	10.00[(b)]
MML Emerging Growth[(g)]	—	—	—	—	—	—	—	—	10.10	10.95	10.00[(a)]
MML Enhanced Index Core Equity[(g)]	—	—	—	—	—	—	—	—	12.00	11.85	10.00[(a)]
MML Equity	25.87	20.81	23.43	20.50	18.44	19.35	17.57	13.35	11.66	12.27	10.00[(a)]
MML Equity Income	27.36	21.92	24.50	21.34	18.21	19.82	18.67	14.56	12.57	12.84	10.00[(a)]

Sub-Account	Dec. 31, 2019	Dec. 31, 2018	Dec 31, 2017	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2013	Dec. 31, 2012	Dec. 31, 2011	Dec. 31, 2010	Value at Inception Date
MML Equity Index	$31.81	$24.63	$26.21	$21.89	$19.89	$19.95	$17.86	$13.72	$12.04	$11.99	$10.00[(a)]
MML Focused Equity	24.74	19.32	19.38	16.14	13.89	15.49	14.02	10.32	—	—	10.00[(d)]
MML Foreign	16.19	14.49	17.46	14.53	14.51	15.34	16.71	14.01	11.92	13.41	10.00[(a)]
MML Fundamental Growth[(*)]	24.17	18.36	18.48	14.71	14.39	13.76	12.58	9.66	—	—	10.00[(d)]
MML Fundamental Value	18.62	15.40	17.44	15.39	13.80	14.43	13.18	10.22	—	—	10.00[(d)]
MML Global	20.64	16.02	17.94	14.63	13.78	14.16	13.80	10.91	8.93	9.45	10.00[(a)]
MML Growth & Income	32.56	24.97	26.69	21.85	20.35	20.52	18.70	14.29	12.12	12.50	10.00[(c)]
MML Growth Allocation	19.12	15.98	17.39	15.18	14.30	14.59	13.97	11.54	10.21	10.39	10.00[(b)]
MML High Yield	17.28	15.65	16.43	15.43	13.45	13.82	13.90	12.73	11.07	10.60	10.00[(e)]
MML Income & Growth	24.48	19.93	22.87	19.73	17.17	17.41	16.15	13.13	11.88	11.40	10.00[(a)]
MML Inflation-Protected and Income	14.66	13.71	14.08	13.82	13.30	13.68	13.40	14.87	14.09	12.58	10.00[(c)]
MML International Equity	10.79	8.79	11.73	9.13	8.56	9.14	—	—	—	—	10.00[(f)]
MML Large Cap Growth	29.01	22.27	23.08	17.51	17.81	17.16	15.88	12.05	10.54	11.09	10.00[(a)]
MML Managed Bond	17.78	16.41	16.70	16.16	15.93	16.26	15.47	15.94	15.26	14.41	10.00[(a)]
MML Managed Volatility	19.07	17.27	18.36	17.05	16.66	16.39	15.90	13.67	12.24	12.90	10.00[(a)]
MML Mid Cap Growth	52.99	40.89	42.34	34.37	32.76	31.08	27.80	20.60	18.34	18.81	10.00[(a)]
MML Mid Cap Value	38.68	30.35	35.34	32.05	26.35	27.09	23.52	18.27	15.86	16.17	10.00[(a)]
MML Moderate Allocation	18.01	15.39	16.50	14.75	13.98	14.25	13.67	11.78	10.54	10.58	10.00[(b)]
MML Short-Duration Bond	10.93	10.63	10.63	10.53	10.40	10.47	10.49	10.55	10.40	10.20	10.00[(e)]
MML Small Cap Equity	31.06	24.88	28.07	24.86	21.30	22.87	20.66	14.84	12.70	13.15	10.00[(a)]
MML Small Cap Growth Equity	42.12	31.77	33.83	27.91	25.08	26.77	25.61	17.47	15.60	16.68	10.00[(a)]
MML Small Cap Index[(g)]	—	—	—	—	—	—	—	—	15.46	15.58	10.00[(a)]
MML Small/Mid Cap Value	36.09	30.40	36.20	32.33	26.18	28.08	25.99	19.05	16.21	17.76	10.00[(c)]
MML Total Return Bond	11.08	10.33	10.51	10.36	10.26	10.40	10.09	10.41	—	—	10.00[(d)]
MML U.S. Government Money Market	9.04	9.00	9.00	9.09	9.19	9.31	9.44	9.56	9.69	9.81	10.00[(b)]
Oppenheimer Global Multi-Alternatives[(l)]	—	9.07	9.51	9.61	9.41	9.92	—	—	—	—	10.00[(f)]
PIMCO CommodityRealReturn® Strategy	5.43	4.94	5.83	5.79	5.11	6.96	8.66	10.29	9.92	10.87	10.00[(k)]
VY® Clarion Global Real Estate	16.71	13.61	15.11	13.86	13.95	14.31	12.73	12.44	10.03	10.73	10.00[(k)]

Accumulation Unit Values – Package III

Sub-Account	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2013	Dec. 31, 2012	Dec. 31, 2011	Dec. 31, 2010	Value at Inception Date
Fidelity® VIP Contrafund®	$37.93	$29.28	$31.76	$26.47	$24.89	$25.11	$22.78	$17.62	$15.37	$16.02	$10.00[(a)]
Invesco Oppenheimer V.I. Capital Appreciation	26.74	19.94	21.48	17.20	17.86	17.52	15.42	12.07	10.74	11.04	10.00[(a)]
Invesco Oppenheimer V.I. Conservative Balanced[(h)]	15.93	13.77	14.77	13.73	13.25	13.34	12.52	11.24	10.16	10.25	10.00[(a)]
Invesco Oppenheimer V.I. Discovery Mid Cap Growth	30.29	22.08	23.88	18.83	18.68	17.80	17.09	12.76	11.13	11.18	10.00[(a)]

Sub-Account	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2013	Dec. 31, 2012	Dec. 31, 2011	Dec. 31, 2010	Value at Inception Date
Invesco Oppenheimer V.I. Global	$33.27	$25.64	$30.00	$22.29	$22.62	$22.10	$21.94	$17.50	$14.66	$16.24	$10.00[a]
Invesco Oppenheimer V.I. Global Strategic Income	19.89	18.23	19.37	18.51	17.64	18.33	18.11	18.41	16.47	16.59	10.00[a]
Invesco Oppenheimer V.I. Government Money[j]	9.44	9.42	9.44	9.55	9.70	9.85	10.01	10.16	10.32	10.48	10.00[a]
Invesco Oppenheimer V.I. High Income[h][i]	—	—	—	—	—	—	—	—	3.77	3.92	10.00[a]
Invesco Oppenheimer V.I. International Growth	25.62	20.24	25.51	20.51	21.28	20.90	22.88	18.46	15.34	16.78	10.00[a]
Invesco Oppenheimer V.I. Main Street	28.39	21.83	24.07	20.91	19.03	18.70	17.16	13.22	11.49	11.67	10.00[a]
Invesco V.I. Diversified Dividend	12.51	10.16	11.16	10.44	9.24	9.19	8.27	6.41	5.49	5.69	10.00[a]
Invesco V.I. Health Care	32.08	24.59	24.75	21.70	24.89	24.51	20.80	15.03	12.63	12.34	10.00[a]
Invesco V.I. Technology	28.55	21.34	21.77	16.36	16.74	15.92	14.56	11.82	10.78	11.54	10.00[a]
MML Aggressive Allocation	19.83	16.25	17.96	15.36	14.37	14.72	14.12	11.26	9.88	10.22	10.00[b]
MML Asset Allocation[g]	—	—	—	—	—	—	—	—	12.94	12.93	10.00[c]
MML Balanced Allocation	16.57	14.42	15.33	13.96	13.36	13.62	13.13	11.65	10.52	10.51	10.00[b]
MML Blend	26.67	22.32	23.69	20.88	19.38	19.67	18.00	15.19	13.70	13.28	10.00[a]
MML Blue Chip Growth	41.25	32.26	32.16	23.98	24.13	22.06	20.53	14.76	12.67	12.69	10.00[a]
MML Concentrated Growth[g]	—	—	—	—	—	—	—	—	9.55	9.77	10.00[a]
MML Conservative Allocation	16.09	14.19	14.93	13.83	13.28	13.54	13.08	11.93	10.88	10.77	10.00[b]
MML Emerging Growth[g]	—	—	—	—	—	—	—	—	9.87	10.72	10.00[a]
MML Enhanced Index Core Equity[g]	—	—	—	—	—	—	—	—	11.71	11.60	10.00[a]
MML Equity	24.76	19.97	22.53	19.76	17.83	18.75	17.07	13.01	11.38	12.01	10.00[a]
MML Equity Income	26.18	21.03	23.57	20.57	17.61	19.20	18.13	14.17	12.27	12.56	10.00[a]
MML Equity Index	30.45	23.63	25.21	21.10	19.22	19.33	17.35	13.36	11.75	11.74	10.00[a]
MML Focused Equity	24.27	19.00	19.11	15.96	13.76	15.39	13.96	10.30	—	—	10.00[d]
MML Foreign	15.49	13.91	16.79	14.01	14.03	14.87	16.23	13.64	11.64	13.12	10.00[a]
MML Fundamental Growth[*]	23.71	18.06	18.22	14.54	14.26	13.67	12.53	9.64	—	—	10.00[d]
MML Fundamental Value	18.26	15.14	17.20	15.22	13.67	14.34	13.12	10.21	—	—	10.00[d]
MML Global	19.76	15.36	17.25	14.11	13.32	13.72	13.40	10.62	8.72	9.25	10.00[a]
MML Growth & Income	31.23	24.01	25.73	21.12	19.72	19.93	18.20	13.95	11.86	12.27	10.00[c]
MML Growth Allocation	18.56	15.55	16.97	14.84	14.01	14.34	13.77	11.40	10.11	10.31	10.00[b]
MML High Yield	16.86	15.31	16.12	15.18	13.26	13.66	13.77	12.65	11.02	10.58	10.00[e]
MML Income & Growth	23.43	19.12	21.99	19.02	16.60	16.87	15.69	12.79	11.60	11.15	10.00[a]
MML Inflation-Protected and Income	14.06	13.19	13.57	13.35	12.89	13.29	13.05	14.51	13.79	12.34	10.00[c]
MML International Equity	10.64	8.69	11.62	9.07	8.53	9.13	—	—	—	—	10.00[f]
MML Large Cap Growth	27.76	21.36	22.20	16.89	17.22	16.63	15.43	11.73	10.29	10.85	10.00[a]
MML Managed Bond	17.02	15.74	16.06	15.58	15.40	15.75	15.03	15.52	14.90	14.10	10.00[a]
MML Managed Volatility	18.25	16.57	17.65	16.44	16.11	15.88	15.45	13.32	11.95	12.63	10.00[a]
MML Mid Cap Growth	50.71	39.22	40.72	33.14	31.66	30.11	27.00	20.06	17.91	18.41	10.00[a]
MML Mid Cap Value	37.02	29.11	33.99	30.90	25.47	26.25	22.85	17.79	15.48	15.83	10.00[a]

Sub-Account	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2013	Dec. 31, 2012	Dec. 31, 2011	Dec. 31, 2010	Value at Inception Date
MML Moderate Allocation	$17.48	$14.97	$16.09	$14.42	$13.70	$14.00	$13.47	$11.63	$10.44	$10.50	$10.00[b]
MML Short-Duration Bond	10.67	10.40	10.43	10.36	10.26	10.35	10.39	10.48	10.36	10.18	10.00[e]
MML Small Cap Equity	29.72	23.87	26.99	23.97	20.59	22.16	20.07	14.45	12.40	12.87	10.00[a]
MML Small Cap Growth Equity	40.30	30.47	32.54	26.91	24.24	25.94	24.88	17.01	15.23	16.33	10.00[a]
MML Small Cap Index[g]	—	—	—	—	—	—	—	—	15.10	15.25	10.00[a]
MML Small/Mid Cap Value	34.62	29.23	34.90	31.24	25.36	27.27	25.31	18.60	15.87	17.42	10.00[c]
MML Total Return Bond	10.87	10.16	10.36	10.24	10.17	10.33	10.05	10.40	—	—	10.00[d]
MML U.S. Government Money Market	8.77	8.76	8.78	8.89	9.01	9.15	9.30	9.44	9.59	9.74	10.00[b]
Oppenheimer Global Multi-Alternatives[l]	—	8.97	9.42	9.55	9.37	9.90	—	—	—	—	10.00[f]
PIMCO CommodityRealReturn® Strategy	5.25	4.79	5.67	5.64	4.98	6.81	8.50	10.12	9.78	10.74	10.00[k]
VY® Clarion Global Real Estate	16.15	13.19	14.68	13.49	13.62	14.01	12.49	12.23	9.89	10.61	10.00[k]

Accumulation Units Outstanding – Custom Plan and Packages I, II & III

Sub-Account	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2013	Dec. 31, 2012	Dec. 31, 2011	Dec. 31, 2010
Fidelity® VIP Contrafund®[a]	1,092,501	1,301,252	1,554,625	1,715,488	1,930,033	2,209,771	2,586,787	3,155,997	3,730,609	4,532,049
Invesco Oppenheimer V.I. Capital Appreciation[a]	1,020,401	1,218,480	1,436,437	1,634,269	1,868,331	2,192,555	2,633,248	3,133,503	3,755,506	4,682,304
Invesco Oppenheimer V.I. Conservative Balanced[a][h]	180,706	215,086	245,796	294,273	335,485	415,909	537,060	639,754	792,221	999,698
Invesco Oppenheimer V.I. Discovery Mid Cap Growth[a]	314,407	388,636	480,720	539,716	592,080	671,439	765,320	916,904	1,042,317	1,295,124
Invesco Oppenheimer V.I. Global[a]	1,184,294	1,375,454	1,627,055	1,889,706	2,150,187	2,446,625	2,871,995	3,483,074	4,191,474	5,075,947
Invesco Oppenheimer V.I. Global Strategic Income[a]	1,208,446	1,479,362	1,683,789	1,907,168	2,213,943	2,533,778	2,980,057	3,598,108	3,757,807	4,524,837
Invesco Oppenheimer V.I. Government Money[a][j]	316,659	397,761	409,896	419,147	502,302	623,014	769,252	892,846	1,196,591	1,469,790
Invesco Oppenheimer V.I. High Income[a][h][i]	—	—	—	—	—	—	—	—	2,147,917	2,615,722
Invesco Oppenheimer V.I. International Growth[a]	347,409	415,858	460,086	494,110	587,451	649,557	741,789	900,705	1,104,826	1,373,201
Invesco Oppenheimer V.I. Main Street[a]	527,339	622,908	708,600	788,653	879,426	1,009,162	1,224,473	1,500,770	1,763,645	2,168,605
Invesco V.I. Diversified Dividend[a]	229,467	274,555	298,584	336,428	305,651	333,309	357,807	390,563	241,087	297,347
Invesco V.I. Health Care[a]	128,724	143,923	171,409	227,960	233,782	257,288	303,980	342,512	398,631	477,811
Invesco V.I. Technology[a]	103,200	115,411	132,602	162,193	178,302	200,526	259,750	303,012	346,522	441,632
MML Aggressive Allocation[b]	130,063	116,476	66,915	168,095	145,581	105,517	168,685	94,276	76,809	133,144
MML Asset Allocation[c][g]	—	—	—	—	—	—	—	—	3,349,610	4,172,473
MML Balanced Allocation[b]	562,488	567,108	651,561	716,018	815,085	1,127,765	1,193,800	1,281,239	774,445	848,112
MML Blend[a]	654,702	718,346	811,826	924,200	1,038,260	1,178,193	1,375,147	1,516,183	1,241,409	1,537,859
MML Blue Chip Growth[a]	452,535	545,398	693,275	781,422	877,076	993,013	1,162,779	1,414,951	1,556,070	1,916,186
MML Concentrated Growth[a][g]	—	—	—	—	—	—	—	—	570,749	706,549
MML Conservative Allocation[b]	406,078	460,040	489,249	577,182	718,231	773,639	770,354	911,359	837,564	651,528

Sub-Account	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2013	Dec. 31, 2012	Dec. 31, 2011	Dec. 31, 2010
MML Emerging Growth[a][g]	—	—	—	—	—	—	—	—	355,117	429,066
MML Enhanced Index Core Equity[a][g]	—	—	—	—	—	—	—	—	399,301	470,468
MML Equity[a]	185,977	212,401	270,262	303,199	328,090	364,345	425,974	508,085	582,495	652,161
MML Equity Income[a]	895,021	1,073,036	1,265,389	1,416,905	1,600,186	1,822,868	2,163,285	2,641,877	3,218,298	3,930,614
MML Equity Index[a]	256,654	297,011	340,162	359,699	406,419	428,475	507,589	607,855	684,024	795,902
MML Focused Equity[d]	23,026	17,331	23,644	26,754	41,876	42,880	42,696	17,577	—	—
MML Foreign[a]	481,071	574,459	664,409	736,429	789,739	911,469	1,037,352	1,292,263	1,540,556	1,869,135
MML Fundamental Growth[d][*]	14,860	12,325	12,100	13,541	10,724	16,558	19,964	17,733	—	—
MML Fundamental Value[d]	28,345	20,456	30,109	35,628	63,149	35,128	23,486	3,449	—	—
MML Global[a]	128,316	150,455	174,014	200,347	219,285	255,146	285,617	334,902	399,319	476,128
MML Growth & Income[c]	1,394,193	1,644,235	1,906,863	2,150,202	2,405,148	2,761,282	3,271,377	3,981,497	4,854,825	5,970,654
MML Growth Allocation[b]	403,664	467,327	725,982	747,098	768,791	1,039,882	1,053,737	1,055,482	1,021,890	1,033,716
MML High Yield[e]	93,830	112,007	124,100	129,347	168,139	145,828	170,255	180,878	128,417	29,474
MML Income & Growth[a]	334,878	388,385	486,029	564,088	633,635	745,797	849,591	1,061,099	1,290,530	1,630,342
MML Inflation-Protected and Income[c]	683,490	781,531	897,424	972,307	1,100,712	1,296,243	1,579,605	2,014,766	2,225,638	2,709,746
MML International Equity[f]	39,399	28,810	33,424	10,822	10,765	505	—	—	—	—
MML Large Cap Growth[a]	304,977	369,164	442,040	516,460	573,839	676,957	820,256	997,327	1,200,689	1,430,121
MML Managed Bond[a]	1,351,018	1,537,780	1,820,715	1,950,204	2,222,425	2,492,137	2,883,550	3,367,443	3,750,512	4,631,151
MML Managed Volatility[a]	291,167	353,887	436,754	482,037	545,465	666,086	758,387	956,665	1,167,716	1,432,373
MML Mid Cap Growth[a]	604,389	714,645	818,887	932,264	1,036,543	1,169,303	1,383,774	1,657,570	1,985,205	2,435,514
MML Mid Cap Value[a]	655,891	758,041	895,339	1,030,901	1,178,619	1,330,841	1,548,531	1,890,965	2,279,032	2,825,563
MML Moderate Allocation[b]	932,713	1,041,966	1,289,778	1,585,909	1,675,377	1,780,042	1,919,132	1,914,070	1,269,086	1,390,938
MML Short-Duration Bond[e]	147,320	157,591	156,871	188,268	182,229	287,510	276,575	325,809	252,142	142,435
MML Small Cap Equity[a]	377,714	442,929	516,938	576,774	646,266	748,801	876,914	1,060,915	1,179,345	1,430,491
MML Small Cap Growth Equity[a]	183,360	215,992	269,866	316,787	393,167	426,963	484,296	572,459	703,215	850,954
MML Small Cap Index[a][g]	—	—	—	—	—	—	—	—	965,981	1,191,732
MML Small/Mid Cap Value[c]	325,533	368,916	439,985	506,948	561,836	653,118	757,783	920,310	1,105,940	1,316,098
MML Total Return Bond[d]	181,296	194,460	233,800	219,103	255,878	196,414	113,959	73,188	—	—
MML U.S. Government Money Market[b]	1,877,529	1,827,414	1,981,121	2,220,965	2,541,158	3,238,307	3,730,966	4,704,879	998,626	1,008,102
Oppenheimer Global Multi-Alternatives[f][l]	—	5,142	5,693	1,485	1,388	2,119	—	—	—	—
PIMCO CommodityRealReturn® Strategy[k]	105,539	127,228	157,368	147,056	158,648	207,982	272,679	404,059	490,520	599,382
VY® Clarion Global Real Estate[k]	44,972	56,801	70,382	93,276	93,112	127,708	131,799	173,621	205,466	228,726

Notes to Condensed Financial Information

(a) *Commencement of public offering was May 28, 2002.*

(b) *Commencement of public offering was January 19, 2008.*

(c) *Commencement of public offering was May 1, 2003.*

(d) *Commencement of public offering was May 1, 2012.*

(e) *Commencement of public offering was May 1, 2010.*

(f) *Commencement of public offering May 1, 2014.*

(g) *Beginning April 30, 2012, this sub-account is unavailable as an investment choice.*

(h) *Effective May 1, 2009 and after, you may not allocate any new money to this sub-account via purchase payments or transfers.*

(i) *Effective October 26, 2012, Oppenheimer High Income was merged into Oppenheimer Global Strategic Income.*

(j) *This sub-account is unavailable in contracts issued on or after January 19, 2008.*

(k) *Commencement of public offering was May 1, 2006.*

(l) *Effective April 29, 2019, the corresponding fund was liquidated and is no longer available as an investment choice.*

* *Individual Sub-Account Footnote(s):*

Effective March 2, 2020, MML Fundamental Growth sub-account known as MML Fundamental Equity sub-account.

Appendix B

Long-Term Guarantee Fixed Account Interest Rate Factor Adjustment Calculation

The Long-Term Guarantee Fixed Account interest rate factor is determined by the following formula:

$$\frac{(1 + a)^{(n/12)}}{(1 + b)^{(n/12)}}$$

a = The initial index rate. The initial index rate is the rate in the Treasury Constant Maturity Series determined for the week prior to the week in which we issue your contract or the most recent renewal of a Long-Term Guarantee Fixed Account falls, for a maturity equal to the length of the current guarantee period.

b = The current index rate plus 0.25%. The current index rate is the interest rate in the Treasury Constant Maturity Series determined for the week prior to the week of the withdrawal, for a maturity equal to the number of whole months between the day of the withdrawal and the last day of the guarantee period.

n = The number of whole months left in the current guarantee period.

An interest rate factor adjustment for a partial withdrawal is calculated as follows:

$$\frac{(a + b) \times (c - 1)}{c}$$

a = the partial withdrawal payment from the Long-Term Guarantee Fixed Account

b = the contingent deferred sales charge for the partial withdrawal applicable to the Long-Term Guarantee Fixed Account

c = the interest rate factor

An interest rate factor adjustment for a full withdrawal is calculated as follows:

$$a \times (b - 1)$$

a = the contract fund value on the business day we receive the request for a full surrender in good order at our Service Center

b = the interest rate factor

The contract fund value is equal to your net purchase payment applicable to the Long-Term Guarantee Fixed Account on the day we issue your contract. On any day after we issue your contract, the contract fund value is equal to:

$$(a \times b) - c$$

a = the previous day’s contract fund value

b = the sum of one plus the daily interest rate equivalent of the guaranteed interest rate

c = any contract fund value reduction made on that day

A negative Interest Rate Factor Adjustment will never result in a payment upon withdrawal that is lower than if the guaranteed rate of interest credited had been equal to the minimum guaranteed interest rate allowed in your state of issue.