MassMutual Transitions Select℠ Variable Annuity

Issued by Massachusetts Mutual Life Insurance Company

Massachusetts Mutual Variable Annuity Separate Account 4

This prospectus describes an individual deferred variable annuity contract offered by Massachusetts Mutual Life Insurance Company. We no longer sell the contract. However, we continue to administer existing contracts. The contract provides for accumulation of contract value and annuity payments on a fixed and/or variable basis. Certain features of the contract involve payment of a credit. If you elect any of these features, your contract expenses may be higher with the feature than without them. The amount of any credits may be more than offset by the charges for your elected features.

You, the contract owner, have a number of investment choices in the contract. These investment choices include various fixed account choices 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 bear the entire investment risk for all amounts you allocate to a sub-account. The number of investment choices may be restricted if you elect certain additional features.

AIM Variable Insurance Funds (Invesco Variable Insurance Funds)
- 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

Ivy Variable Insurance Portfolios
- Ivy VIP Asset Strategy

MML Series Investment Fund
- MML Aggressive Allocation Fund
- MML American Funds Core Allocation Fund
- MML American Funds® Growth Fund
- MML American Funds® International 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 Growth 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 Company Value 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 Strategic Emerging Markets Fund
- MML U.S. Government Money Market Fund

Oppenheimer Variable Account Funds
- Oppenheimer Capital Appreciation Fund/VA
- Oppenheimer Conservative Balanced Fund/VA
- Oppenheimer Discovery Mid Cap Growth Fund/VA
- Oppenheimer Global Fund/VA
- Oppenheimer Global Strategic Income Fund/VA
- Oppenheimer Government Money Fund/VA
- Oppenheimer International Growth Fund/VA
- Oppenheimer Main Street Fund®/VA

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, 2019. 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 61 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 Select℠ Variable Annuity.

Effective May 1, 2019

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.

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 Select 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."

2008 and Pre-2008 Versions of the Transitions Select Contract

This prospectus describes two versions of the Transitions Select contract: the 2008 Version (contracts applied for on or after 9/8/2008, subject to state availability); and the Pre-2008 Version (applied for prior to 9/8/2008 or in states where the 2008 Version was unavailable). The primary differences are disclosed in the following sections: "Table of Fees and Expenses," "Appendix G – Funds" and "Appendix H – Funds." Additionally, the expenses for funds offered in the 2008 Version are generally higher than for the funds in the Pre-2008 Version. See "Table of Fees and Expenses – Annual Fund Operating Expenses."

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. This date must be at least five years (13 months for contracts issued in New York) from when you purchase the contract.

The contract has two phases – the accumulation phase and the income phase. Your contract is in the accumulation phase until you apply your entire contract value to an annuity option. During the accumulation phase you can apply purchase payments to your contract and we provide a death benefit. 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 deferred variable annuity. The contract provides for accumulation of contract value and annuity payments on a fixed and/or variable basis. 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.
Additional Features	The following are additional features that may be available to you through the contract for an additional charge or a credit: MassMutual Lifetime Income Protector; Guaranteed Minimum Accumulation Benefit (GMAB); Additional Death Benefit Features; Nine Year Contingent Deferred Sales Charge Feature; 10%/20% Free Withdrawal Feature; Nursing Home Waiver Benefit; Electronic Document Delivery Credit; and Case Size Credit. For details including terms, restrictions and participation rules, see "Additional Features."
Death Benefits	The contract offers three death benefit features during the accumulation phase: the Basic Death Benefit; the Annual Ratchet Death Benefit (for an additional charge); and the Contract Value Death Benefit. Once the income phase commences, payments upon death may be available to beneficiaries depending on the annuity option elected. See "Death Benefit," "Additional Features" and "The Income Phase."

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. Your investment choices include a number of sub-accounts and various fixed accounts. See "Transfers and Transfer Programs – Asset Allocation Programs." The number of investment choices may be restricted if you elect certain additional features. See "Investment Choices," "Additional Features," "Appendix G – Funds," "Appendix H – Funds" and "Appendix C – Additional Features."
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 (CDSC), 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." Withdrawals reduce the value of the contract's death benefit. Withdrawals also reduce the value of any Guaranteed Minimum Accumulation Benefit or Guaranteed Minimum Income Benefit. Withdrawals taken prior to the Guaranteed Lifetime Withdrawal Date, or in excess of the Guaranteed Lifetime Withdrawal Amount, will reduce the value of any Guaranteed Minimum Withdrawal Benefit. Excess withdrawals will reduce the value of any MassMutual Lifetime Income Protector benefit. We describe the impact of withdrawals under each feature's section in "Additional Features" and "Appendix C – Additional Features."
Transfers	Subject to certain restrictions, you may periodically transfer contract value among available investment choices. See "Transfers and Transfer Programs."
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.
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 ten 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 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.

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 Nine Year *(credit provided if elected)*	8%	8%

Contingent Deferred Sales Charge Schedules

Standard

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

Optional Nine Year

Contract Year	1	2	3	4	5	6	7	8	9	10 or 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.

Periodic Contract Charges	*Current (annual rate)*	*Maximum (annual rate)*
Annual Contract Maintenance Charge	$ 40[1]	$ 60[1]
Separate Account Annual Expenses *(as a percentage of average account value in the separate account on an annualized basis)*		
Mortality and Expense Risk Charge	1.00%	1.70%
Administrative Charge	0.15%	0.25%
Total Separate Account Annual Expenses	1.15%	1.95%

Charges for Additional Features	*Current Charge (annual rate)*	*Maximum Charge (annual rate)*
MassMutual Lifetime Income Protector		
Available to contracts issued on or after 1/11/2010	0.95% of current income base	1.95% of current income base
Annual Ratchet Death Benefit	0.40% of contract value	0.90% of contract value
Guaranteed Minimum Accumulation Benefit [2]		
Available to contracts issued on or after 5/1/2010	0.95% of contract value	1.00% of contract value
Available to contracts issued on or after 9/1/2006 and prior to 5/1/2010	0.45% of contract value	1.00% of contract value

Charges for Additional Features	*Current Charge (annual rate)*	*Maximum Charge (annual rate)*
Available to contracts issued prior to 9/1/2006	0.35% of contract value	1.00% of contract value
10%/20% Free Withdrawal Feature [2]	0.25% of contract value	0.35% of contract value
Nursing Home Waiver Benefit [2]	0.05% of contract value	0.10% of contract value
Guaranteed Minimum Income Benefits (GMIB) [3]		
MassMutual Guaranteed Income Plus 5 (2008 and Pre-2008 Versions "GMIB 5")	0.65% of current GMIB value	1.50% of current GMIB value
MassMutual Guaranteed Income Plus 6 (2008 and Pre-2008 Versions "GMIB 6")	0.80% of current GMIB value	1.50% of current GMIB value
Basic GMIB [2]	0.60% of contract value	1.25% of contract value
MassMutual Lifetime Payment Plus [3]		
Single Life	0.60% of current benefit base	1.50% of current benefit base
Joint Life	0.85% of current benefit base	1.50% of current benefit base
Equalizer Benefit [2, 3]	0.50% of contract value	0.60% of contract value

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

2 *In the first contract year, the charge is a percentage of your purchase payments. On the last day of your first contract year and on the last day of each contract year thereafter, the annual charge is a percentage of your contract value on that date.*

3 *For more information about this feature, see "Appendix C – Additional Features."*

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 tables below show 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, 2018 (before any waivers or reimbursements).[1] 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. Current and future expenses may be higher or lower than those shown.

2008 Version: for contracts applied for on or after 9/8/2008, subject to state availability

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.	0.54%	2.33%

Pre-2008 Version: for contracts applied for prior to 9/8/2008 or in states where the 2008 Version was unavailable

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.	0.42%	2.17%

1 *The Fund expenses used to prepare these tables 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 Using Current and Maximum Expenses

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. Currently the income phase is not available until five years (13 months for contracts issued in New York) after you purchase your contract.

Both Example I and Example II assume:

- that your contract is the 2008 Version,
- 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 you elected the 10%/20% Free Withdrawal Feature, the Nursing Home Waiver Benefit, the Annual Ratchet Death Benefit and the Guaranteed Minimum Accumulation Benefit,
- that either the current or maximum fees and expenses in the "Table of Fees and Expenses" apply (including total separate account annual expenses of 1.15% for current fees and expenses and 1.95% for maximum fees and expenses), and
- that you selected one of two sub-accounts:
    1) the one that invests in the Asset Allocation Fund with the highest total operating expenses; or
    2) the one that invests in the Asset Allocation Fund with the lowest 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 highest total operating expenses (assumes investment in the Asset Allocation Fund with the highest total operating expenses)	$1,030	$1,769	$2,426	$4,117	$392	$1,189	$2,003	$4,117
Sub-Account with lowest total operating expenses (assumes investment in the Asset Allocation Fund with the lowest total operating expenses)	$1,025	$1,755	$2,404	$4,074	$387	$1,174	$1,980	$4,074

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 highest total operating expenses (assumes investment in the Asset Allocation Fund with the highest total operating expenses)	$1,170	$2,175	$3,083	$5,327	$543	$1,622	$2,692	$5,327
Sub-Account with lowest total operating expenses (assumes investment in the Asset Allocation Fund with the lowest total operating expenses)	$1,165	$2,161	$3,062	$5,290	$538	$1,608	$2,670	$5,290

The examples using current expenses reflect the annual contract maintenance charge of $40 as an annual charge of 0.02%.

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

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 the 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 the Company’s distribution channels: MassMutual Financial Advisors, Direct to Consumer, 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 of the contract. 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 contracts issued in New York and Oklahoma) as of the date we proposed to issue the contract. The maximum issue age for the contract and certain of its riders may be reduced in connection with the offer of the contract through certain broker-dealers. You should discuss this with your registered representative.

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. On and after the annuity date, you continue as the owner. You may change the owner of a non-qualified contract at any time prior to the annuity date by sending written authorization on our form, in good order, to our Service Center. However, in certain states you may not change owners without our approval. We will refuse or accept any requested change on a non-discriminatory basis. Please refer to your contract. Changing the owner may result in tax consequences. If you are participating in MassMutual Lifetime Income Protector or MassMutual Lifetime Payment Plus, changes to an owner (or an annuitant, if the owner is a non-natural person) may terminate the feature.

Contracts under qualified plans generally must be held by the plan sponsor or plan trustee. Except for TSAs, Keogh plans, and IRAs, an individual cannot be the owner of a contract held to fund a qualified plan. Therefore, the individuals covered by the qualified plan have no ownership rights.

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 contracts issued in New York and Oklahoma) as of the date we propose 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 contracts issued in New York and Oklahoma) 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 participating in MassMutual Lifetime Income Protector or MassMutual Lifetime Payment Plus, changes to the beneficiary may reduce the value of the benefit.

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, a 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 or other qualified contract 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. For a list of the 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 regarding 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 Select contract. However, we continue to administer existing contracts and we continue to accept purchase payments to existing contracts, subject to the limits described in this section.

The minimum amount we accepted for an initial purchase payment was $3,000 for qualified contracts and $5,000 for non-qualified contracts. If you elected MassMutual Lifetime Income Protector when we issued your contract, the minimum amount we accepted for your initial purchase payment was $25,000.

Effective March 25, 2009, if you applied for a non-qualified or qualified contract with an election of the Guaranteed Minimum Income Benefit 5 (GMIB 5) or MassMutual Lifetime Payment Plus, the minimum amount we accepted for your initial purchase payment was $25,000. The GMIB 5 and MassMutual Lifetime Payment Plus were not available in contracts applied for after March 31, 2009.

These amounts may vary by state.

You can make additional purchase payments to your contract. However, additional purchase payments of less than $250 are subject to our approval.

For contracts issued on or after May 1, 2010, the maximum amount of cumulative purchase payments we accept without our prior approval is $1.5 million.

For contracts issued in New Jersey, the maximum amount of cumulative purchase payments we accept is $1.5 million.

For all contracts with an election of MassMutual Lifetime Income Protector, we reserve the right to limit total purchase payments after the first contract year to $100,000.

For contracts issued prior to May 1, 2010, 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:

- $1.5 million up to age 75; or
- $500,000 if older than age 75 or if the owner is a non-natural person.

For contracts issued in New Jersey, the maximum amount of cumulative purchase payments we accept is based on the age of the oldest owner, or the oldest annuitant if the owner is non-natural, when we issued the contract. The maximum amount is:

- $2 million up to age 75; or
- $1 million if older than age 75.

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.”

Purchase Payment Delivery. You may submit your initial purchase payment, along with your completed application, by giving it to your registered representative. You can make additional purchase payments:

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

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

Overnight Mail
MassMutual Transitions Select
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 subsequent 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

General Overview. 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.

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.

If you are participating in a transfer program, Asset Allocation Program, Guaranteed Minimum Accumulation Benefit, Guaranteed Minimum Income Benefit, MassMutual Lifetime Payment Plus or MassMutual Lifetime Income Protector, allocation restrictions apply. See "Transfers and Transfer Programs," "Additional Features – Guaranteed Minimum Accumulation Benefit," "Appendix C – Additional Features – Guaranteed Minimum Income Benefit," "Appendix C – Additional Features – MassMutual Lifetime Payment Plus" and "Additional Features – MassMutual Lifetime Income Protector."

The Fixed Account and the Long-Term Guarantee Fixed Accounts. For contracts issued after December 30, 2011, you may allocate up to 50% of each purchase payment between The Fixed Account and the Long-Term Guarantee Fixed Accounts (unless your contract was issued in Oregon). For contracts issued after October 25, 2012 in Oregon, you may allocate up to 50% of each purchase payment between The Fixed Account and the Long-Term Guarantee Fixed Accounts.

For contracts issued on or before December 30, 2011, you may allocate up to 70% of each purchase payment between The Fixed Account and the Long-Term Guarantee Fixed Accounts (unless your contract was issued in Oregon). For contracts issued on or before October 25, 2012 in Oregon, you may allocate up to 70% of each purchase payment between The Fixed Account and the Long-Term Guarantee Fixed Accounts.

If you are participating in a Guaranteed Minimum Accumulation Benefit, Guaranteed Minimum Income Benefit, Guaranteed Minimum Withdrawal Benefit or MassMutual Lifetime Income Protector, you cannot make allocations to The Fixed Account or to the Long-Term Guarantee Fixed Accounts. We reserve the right, upon providing you with 30 days advance notice, to change the percentage allowed, or to disallow completely the allocation of purchase payments to The Fixed Account or the Long-Term Guarantee Fixed Accounts. We will only exercise our right to discontinue access to The Fixed Account and the Long-Term Guarantee Fixed Accounts if the yield on investments will not support the guaranteed minimum interest rate. The guaranteed minimum interest rate is the minimum rate allowed by state law as of the date we issue your contract. Additionally, we will not exercise this right in an unfairly discriminatory manner.

Applying Purchase Payments. Once we receive your initial purchase payment and the necessary information in good order at our Service Center or lockbox, 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, 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 in good order 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 back 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

This section discloses information about our separate account; certain fund types (asset allocation and feeder funds); compensation we receive from funds, advisers and sub-advisers; and fixed investment choices. For a brief description of the funds which are offered through our separate account see “Appendix G – Funds” for the 2008 Version and “Appendix H – Funds” for the Pre-2008 Version.

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 funds available as investment choices under the contract vary between contract versions. If you have the 2008 Version (contracts applied for on or after 9/8/2008, subject to state availability), the funds available under your contract are listed in “Appendix G – Funds.” If you have the Pre-2008 Version (contracts applied for prior to 9/8/2008 or in states where the 2008 Version was unavailable), the funds available under your contract are listed in “Appendix H – Funds.” 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.

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 a 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.

The fixed accounts are investment choices within our general 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.”

The 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 a DCA Fixed Account to the fixed accounts. 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.

DCA Term

In most states, you have a choice of three DCA Fixed Accounts: (a) DCA Fixed Account with a DCA Term of six months; (b) DCA Fixed Account with a DCA Term of 12 months; or (c) DCA Fixed Account with a DCA Term of 18 months. You can only participate in one DCA Fixed Account at a time.

To the extent permitted by law, we reserve the right to change the duration of the DCA Terms in the future. Your DCA Term will terminate upon payment of the death benefit.

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.

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.

DCA Transfers

We 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 make a one-time transfer of your remaining contract value in the DCA Fixed Account into any of the fund(s) 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.

DCA Withdrawals

If you withdraw all or a portion of your contract value during a DCA Term, we will apply our normal withdrawal provisions.

DCA Fees

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

DCA Interest Rate

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.

Additional Restrictions

If you are participating in a DCA Fixed Account, you cannot also participate in an Asset Allocation Program, the Automatic Rebalancing Program, the Interest Sweep Option, the Separate Account Dollar Cost Averaging Program, a Guaranteed Minimum Accumulation Benefit, a Guaranteed Minimum Income Benefit, MassMutual Lifetime Payment Plus or MassMutual Lifetime Income Protector.

Long-Term Guarantee Fixed Accounts. Each Long-Term Guarantee Fixed Account is a fixed account that is a part of the company's general account. During the accumulation phase, you may elect to have a purchase payment or transfer allocated to a Long-Term Guarantee Fixed Account. Your election must be in writing.

Allocating Purchase Payments

For contracts issued after December 30, 2011, you may allocate up to 50% of each purchase payment between The Fixed Account and the Long-Term Guarantee Fixed Accounts (unless your contract was issued in Oregon). For contracts issued after October 25, 2012 in Oregon, you may allocate up to 50% of each purchase payment between The Fixed Account and the Long-Term Guarantee Fixed Accounts.

For contracts issued on or before December 30, 2011, you may allocate up to 70% of each purchase payment between The Fixed Account and the Long-Term Guarantee Fixed Accounts (unless your contract was issued in Oregon). For contracts issued on or before October 25, 2012 in Oregon, you may allocate up to 70% of each purchase payment between The Fixed Account and the Long-Term Guarantee Fixed Accounts.

If you are participating in a Guaranteed Minimum Accumulation Benefit, a Guaranteed Minimum Income Benefit, MassMutual Lifetime Payment Plus or MassMutual Lifetime Income Protector, you cannot make allocations to the Long-Term Guarantee Fixed Accounts. We reserve the right, upon providing you with 30 days advance notice, to change the percentage allowed, or to disallow completely the allocation of purchase payments to the Long-Term Guarantee Fixed Accounts. We will only exercise our right to discontinue access to the Long-Term Guarantee Fixed Accounts if the yield on investments will not support the guaranteed minimum interest rate. The guaranteed minimum interest rate is the minimum rate allowed by state law as of the date we issue your contract. Additionally, we will not exercise this right in an unfairly discriminatory manner.

We will only accept a purchase payment to a Long-Term Guarantee Fixed Account as of the beginning of a guarantee period. The minimum purchase payment amount we permit to any of the Long-Term Guarantee Fixed Accounts is $1,000.

Transfers into a Long-Term Guarantee Fixed Account

We will only accept a transfer into a Long-Term Guarantee Fixed Account as of the beginning of a guarantee period. The minimum transfer amount we permit into any of the Long-Term Guarantee Fixed Accounts is $1,000. For additional rules limiting your ability to transfer contract value into the Long-Term Guarantee Fixed Accounts, see "Transfers and Transfer Programs."

Transfers out of a Long-Term Guarantee Fixed Account

You may only transfer contract value out of 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. For additional rules limiting your ability to transfer contract value out of the Long-Term Guarantee Fixed Accounts, see "Transfers and Transfer Programs."

Withdrawals and the Interest Rate Factor Adjustment

If you make a partial withdrawal, we will take the withdrawal amount proportionally from your contract value in your investment choices as of the business day we receive your request in good order at our Service Center. 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:

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

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

c) the RMD is for the current calendar year; and

d) 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.

Rate of Interest

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 your purchase payment or transferred contract value to that account, and ends on the last day of the guarantee period. Amounts you allocate or transfer to any Long-Term Guarantee Fixed Account earn interest at the guaranteed rate applicable to that Long-Term Guarantee Fixed Account on the date we credit the amount to that account. The interest rate we credit remains constant during a 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 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.

Renewal Options

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 Accounts to another investment choice. If you have not elected otherwise by written request sent in good order to our Service Center, we will automatically invest your contract value in a 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.

The Fixed Account. For contracts issued after December 30, 2011, you may allocate up to 50% of each purchase payment between The Fixed Account and the Long-Term Guarantee Fixed Accounts (unless your contract was issued in Oregon). For contracts issued after October 25, 2012 in Oregon, you may allocate up to 50% of each purchase payment between The Fixed Account and the Long-Term Guarantee Fixed Accounts.

For contracts issued on or before December 30, 2011, you may allocate up to 70% of each purchase payment between The Fixed Account and the Long-Term Guarantee Fixed Accounts (unless your contract was issued in Oregon). For contracts issued on or before October 25, 2012 in Oregon, you may allocate up to 70% of each purchase payment between The Fixed Account and the Long-Term Guarantee Fixed Accounts.

If you are participating in a Guaranteed Minimum Accumulation Benefit, a Guaranteed Minimum Income Benefit, MassMutual Lifetime Payment Plus or MassMutual Lifetime Income Protector, you cannot make allocations to The Fixed Account. We reserve the right, upon providing you with 30 days advance notice, to change the percentage allowed, or to disallow completely the allocation of purchase payments to The Fixed Account. We will only exercise our right to discontinue access to The Fixed Account if the yield on investments will not support the guaranteed minimum interest rate. The guaranteed minimum interest rate is the minimum rate allowed by state law as of the date we issue your contract. Additionally, we will not exercise this right in an unfairly discriminatory manner.

Transfers

There are additional rules limiting your ability to transfer contract value out of or into The Fixed Account. These are detailed in "Transfers and Transfer Programs."

Withdrawals

If you make a partial withdrawal, we will take the withdrawal amount proportionally from your contract value in your investment choices as of the business day we receive your request in good order at our Service Center. Partial withdrawals from The Fixed Account are calculated on a first-in, first-out basis, which means the oldest purchase payments are withdrawn first.

Interest Rate

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.

Contract Value

Your contract value is the sum of your value in the sub-accounts and the fixed account(s).

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 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. 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, we do not restrict the amount you can transfer to a fund. However, we reserve the right to require a minimum transfer amount equal to $1,000 or the entire amount in a fund, if less. We waive this requirement if a transfer is made due to participation in an Asset Allocation Program, the Separate Account Dollar Cost Averaging Program, the Interest Sweep Option, the DCA Fixed Accounts or the Automatic Rebalancing Program. Currently, we do not require that a minimum amount remain in a fund after you make a transfer. However, we reserve the right to require that a minimum amount of $1,000 remain in a fund after a transfer, unless you transfer the entire fund value.

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 – The DCA Fixed Accounts."*

1) For contracts issued after December 30, 2011, we currently limit any transfer from the funds such that no transfer can cause your combined value in The Fixed Account and the Long-Term Guarantee Fixed Accounts to exceed 50% of your total contract value (unless your contract was issued in Oregon). For contracts issued after October 25, 2012 in Oregon, we currently limit any transfer from the funds such that no transfer can cause your combined value in The Fixed Account and the Long-Term Guarantee Fixed Accounts to exceed 50% of your total contract value.

   For contracts issued on or before December 30, 2011, we currently limit any transfer from the funds such that no transfer can cause your combined value in The Fixed Account and the Long-Term Guarantee Fixed Accounts to exceed 70% of your total contract value (unless your contract was issued in Oregon). For contracts issued on or before October 25, 2012 in Oregon, we currently limit any transfer from the funds such that no transfer can cause your combined value in The Fixed Account and the Long-Term Guarantee Fixed Accounts to exceed 70% of your total contract value.

   We reserve the right, upon providing you with 30 days notice, to change these percentage limits or to disallow transfers to The Fixed Account and the Long-Term Guarantee Fixed Accounts.

2) 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 the amount you can transfer out of The Fixed Account. Each contract year, we will allow you to transfer up to 30% of your contract value in The Fixed Account as of your first transfer in that contract year. The 30% can be transferred at one time, or through several transfers during the contract year. If you transfer 30% of your contract value in The Fixed Account for three consecutive contract years, in the fourth consecutive contract year you may transfer up to 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.

3) You may not transfer contract value from The Fixed Account to the Long-Term Guarantee Fixed Accounts or a money market fund. For a period of 90 days after you transfer contract value out of The Fixed Account, you may not transfer any contract value into The Fixed Account, the Long-Term Guarantee Fixed Accounts or a money market fund.

4) If you are participating in a transfer program, an Asset Allocation Program, a Guaranteed Minimum Accumulation Benefit, a Guaranteed Minimum Income Benefit, MassMutual Lifetime Payment Plus or MassMutual Lifetime Income Protector, additional transfer restrictions may apply. See “Transfers and Transfer Programs,” “Additional Features – Guaranteed Minimum Accumulation Benefit,” “Appendix C – Additional Features – Guaranteed Minimum Income Benefit,” “Appendix C – Additional Features – MassMutual Lifetime Payment Plus” and “Additional Features – MassMutual Lifetime Income Protector.”

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

During the income phase, if you are receiving variable payments, 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 each 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.

Asset Allocation Programs

We restrict which Asset Allocation Programs are available to you based on your elected additional features and when your contract is issued.

Asset Allocation Programs and Additional Features. You must elect an Asset Allocation Program if you are participating in:

1) MassMutual Lifetime Income Protector; or
2) Guaranteed Minimum Accumulation Benefit (GMAB); or
3) Guaranteed Minimum Income Benefit (GMIB); or
4) MassMutual Lifetime Payment Plus.

If you are participating in one of the features listed above, we describe in this section which Asset Allocation Programs are available to you.

If you are not participating in GMIB, GMAB, MassMutual Lifetime Payment Plus or MassMutual Lifetime Income Protector, you may elect to participate in the following Asset Allocation Programs:

- Asset Allocation Funds; or
- Custom Allocation Choice (for contracts issued prior to 5/1/2010); or
- Directed Allocation Models. (Directed Allocation Models are only available if you were participating in a model as of 1/18/2008. If you subsequently elect a different Asset Allocation Program, you cannot return to the Directed Allocation Models.)

Transfers Within Asset Allocation Programs. You may make transfers as permitted within your elected Asset Allocation Program and you may transfer from one Asset Allocation Program to another (subject to availability). If you are participating in the GMAB, GMIB or MassMutual Lifetime Payment Plus, you may make transfers outside of the Asset Allocation Programs only if you first cancel your election of the GMAB, GMIB or MassMutual Lifetime Payment Plus and then make the transfer request subject to the terms and conditions described in "Transfers and Transfer Programs." If you are participating in MassMutual Lifetime Income Protector you cannot make transfers outside of the Asset Allocation Programs.

For Contracts Issued on or after 5/1/2010

Asset Allocation Programs Available with MassMutual Lifetime Income Protector. If you participate in MassMutual Lifetime Income Protector, you must elect one of the following Asset Allocation Programs:

- Custom Allocation Choice Select; or
- Asset Allocation Funds (restrictions apply, see "Asset Allocation Programs – Asset Allocation Funds" in this section).

Asset Allocation Programs Available with the GMAB. If you participate in the GMAB, you must elect one of the following Asset Allocation Programs:

- Custom Allocation Choice Select; or
- Asset Allocation Funds (restrictions apply, see "Asset Allocation Programs – Asset Allocation Funds" in this section).

For Contracts Issued Prior to 5/1/2010

Asset Allocation Programs Available with MassMutual Lifetime Income Protector. If you participate in MassMutual Lifetime Income Protector, you must elect one of the following Asset Allocation Programs:

- Custom Allocation Choice Select; or
- Asset Allocation Funds (restrictions apply, see "Asset Allocation Programs – Asset Allocation Funds" in this section).

Asset Allocation Programs Available with the GMAB, GMIB and MassMutual Lifetime Payment Plus. If you participate in the GMAB, GMIB or MassMutual Lifetime Payment Plus you must elect one of the following Asset Allocation Programs:

- Custom Allocation Choice Select (only available with GMAB); or
- Custom Allocation Choice; or
- Asset Allocation Funds (restrictions apply see, "Asset Allocation Programs – Asset Allocation Funds" in this section); or
- Directed Allocation Models. (Directed Allocation Models are unavailable with MassMutual Lifetime Payment Plus. Additionally, Directed Allocation Models are only available if you were participating in a model as of 1/18/2008. If you subsequently elect a different Asset Allocation Program, you cannot return to the Directed Allocation Models.)

Custom Allocation Choice Select. You may only elect Custom Allocation Choice Select if you are participating in GMAB or MassMutual Lifetime Income Protector. If you elect Custom Allocation Choice Select, you must allocate your contract value within the Custom Allocation Choice Select parameters. The parameters are the minimum and maximum that may be allocated to each style of investment choice offered through Custom Allocation Choice Select. Periodically, we will rebalance your contract value so that it continues to follow the parameters. You can elect that the rebalancing occur quarterly, annually or semiannually during each calendar year. If you do not make an election, rebalancing will occur quarterly. See "Appendix J" for Custom Allocation Choice Select parameters and investment choices. Participation in Custom Allocation Choice Select does not assure a profit and does not protect you against loss in a declining market. We will terminate your participation in Custom Allocation Choice Select:

- if you apply your full contract value to an annuity option;
- if you withdraw the total contract value; or
- upon payment of the death benefit.

Additionally, unless you are participating in MassMutual Lifetime Income Protector, you may request that we end the program (in writing or by telephone).

Asset Allocation Funds. If you are participating in MassMutual Lifetime Income Protector, GMAB, GMIB or MassMutual Lifetime Payment Plus, you can fulfill our requirement that you participate in an Asset Allocation Program, by allocating all of your contract value to one of our Asset Allocation Funds. While participating in this program you can make transfers by moving your full contract value from one Asset Allocation Fund to another.

The funds are as follows:

- MML Aggressive Allocation Fund

  The MML Aggressive Allocation Fund is not available as an investment choice if you are participating in MassMutual Lifetime Income Protector, MassMutual Guaranteed Income Plus 6 or MassMutual Lifetime Payment Plus. Additionally, this fund is unavailable if your contract was issued on or after 4/15/2009 and you are participating in MassMutual Guaranteed Income Plus 5 or the Guaranteed Minimum Accumulation Benefit.
- MML American Funds Core Allocation Fund
- MML Balanced Allocation Fund
- MML Conservative Allocation Fund
- MML Growth Allocation Fund

  The MML Growth Allocation Fund is not available as an investment choice if you are participating in MassMutual Lifetime Income Protector. Additionally, this fund is unavailable if your contract was issued on or after 5/1/2010 and you are participating in the Guaranteed Minimum Accumulation Benefit.
- MML Moderate Allocation Fund

These funds are also available if you do not have an election of MassMutual Lifetime Income Protector, a GMAB, GMIB or MassMutual Lifetime Payment Plus. In such case you may allocate a portion or all of your contract value to these funds.

Custom Allocation Choice. If you elect Custom Allocation Choice, you must allocate your contract value within the Custom Allocation Choice parameters. The parameters are the minimum and maximum that may be allocated to each style of investment choice offered through the contract. Periodically, we will rebalance your contract value so that it continues to follow the parameters. You can elect that the rebalancing occur quarterly, annually or semi-annually during each calendar year. If you do not make an election, rebalancing will occur quarterly. Custom Allocation Choice parameters and investment choices are shown in "Appendix K." Participation in Custom Allocation Choice does not assure a profit and does not protect you against loss in a declining market. We will terminate your participation in Custom Allocation Choice:

- if you apply your full contract value to an annuity option;
- if you withdraw the total contract value;
- upon payment of the death benefit; or
- if you request that we end the program (in writing or by telephone).

Directed Allocation Models. If you elect a directed allocation model (model), the model you elect will determine which investment choices your contract value is invested in and how much of your contract value is allocated to each investment choice. The directed allocation models are static models which means the underlying investment allocations within each model will not change over time.

Participation in a model does not assure a profit and does not protect you against loss in a declining market. We will rebalance your contract value each calendar year quarter so it continues to follow your elected model strategy. Contract value in the fixed accounts will not be rebalanced. For a detailed description of the available models, contact our Service Center or your registered representative.

While participating in a model you may transfer your contract value by changing models. If you do submit a transfer request other than a request to change your model, we will terminate your participation in the directed allocation models and notify you of the termination.

An exception to this is if you transfer contract value from The Fixed Account or the Long-Term Guarantee Fixed Accounts into a fund or funds. In this case we will not cancel your participation in the directed allocation models.

Additionally, we will terminate your participation in the directed allocation models:

- if you apply your full contract value to an annuity option;
- if you withdraw the total contract value;
- upon payment of the death benefit; or
- if you request that we end the program (in writing or by telephone).

If you transfer out of the directed allocation models, they are no longer available for you to re-elect after 1/18/2008.

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:

1) Separate Account Dollar Cost Averaging Program;
2) Automatic Rebalancing Program; and
3) 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 the DCA Fixed Account, an Asset Allocation Program, Guaranteed Minimum Accumulation Benefit, Guaranteed Minimum Income Benefit, MassMutual Lifetime Payment Plus or MassMutual Lifetime Income Protector.

We do not charge you for participation in these programs.

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 a 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 Account 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; or
- 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. 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 a 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 make either partial or full withdrawals of your contract value.

We take any partial withdrawal proportionally from your contract value in your selected investment choices. We reserve the right to limit you to one partial withdrawal per contract year.

Where we reflect a reduction as a percentage 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.

Withdrawals reduce the value of the contract's death benefit. Withdrawals also reduce the value of any Guaranteed Minimum Accumulation Benefit or Guaranteed Minimum Income Benefit. Withdrawals taken prior to the Guaranteed Lifetime Withdrawal Date or in excess of the Guaranteed Lifetime Withdrawal Amount will reduce the value of any MassMutual Lifetime Payment Plus benefit. Excess withdrawals will reduce the value of any MassMutual Lifetime Income Protector benefit. We describe the impact of withdrawals under each feature's section in "Additional Features" and "Appendix C – Additional Features."

When making a partial withdrawal, you must withdraw at least $100. We reserve the right to increase this 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. We reserve the right to change these amounts. If you are participating in MassMutual Lifetime Income Protector, MassMutual Lifetime Payment Plus, GMIB 5 or GMIB 6, we do not require a minimum contract value following a partial withdrawal.

If you withdraw your full contract value, the contract terminates and does not provide a death benefit, a Guaranteed Minimum Accumulation Benefit or the Basic GMIB. However, MassMutual Lifetime Income Protector, MassMutual Lifetime Payment Plus, GMIB 5 and GMIB 6 features may still provide a benefit if you make a full withdrawal. See "Additional Features – MassMutual Lifetime Income Protector," "Appendix C – Additional Features – MassMutual Lifetime Payment Plus," and "Appendix C – Additional Features – GMIB 5 and GMIB 6."

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

- less any applicable contingent deferred sales charge;
- less any applicable interest rate factor adjustment;
- less any applicable premium tax;
- less any contract maintenance charge, 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, 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:

a) our partial surrender or full surrender form; and

b) 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 (SWP). *For detailed rules and restrictions pertaining to this program and instructions for electing the program contact our Service Center.*

If you are participating in MassMutual Lifetime Income Protector, different rules may apply regarding the SWP. See "Additional Features – MassMutual Lifetime Income Protector."

The 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 terminate:

- 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 the MassMutual Guaranteed Income Plus 5 or MassMutual Guaranteed Income Plus 6 is in effect and your next systematic withdrawal will cause withdrawals in the current contract year to exceed the current contract year interest credited on your GMIB value;
- if MassMutual Lifetime Payment Plus is in effect and your next systematic withdrawal will cause withdrawals in the current contract year to exceed the Guaranteed Lifetime Withdrawal Amount or the Guaranteed Withdrawal Amount;
- 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 you apply your full contract value to an annuity option; or
- if you give us 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.

If MassMutual Lifetime Income Protector is in effect and you make withdrawals outside of the SWP, there are specific conditions under which we will halt the SWP through the remainder of a current contract year. See “Additional Features – MassMutual Lifetime Income Protector – Withdrawals On or After the Income Eligibility Date – Withdrawals Outside of the SWP.”

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:

1) the mortality and expense risk charge; and
2) the administrative charge.

Mortality and Expense Risk Charge

This charge is equal, on an annual basis, to 1.00% of the daily value of the assets invested in each fund, after fund expenses are deducted. We may increase this charge at any time while you own the contract, but the charge will never exceed 1.70%.

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. In no case will we raise the charge above the guaranteed amount. 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 annual basis, to 0.15% of the daily value of the assets invested in each fund, after fund expenses are deducted. 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%.

Annual Contract Maintenance Charge

At the end of each contract year, we deduct $40 from your contract value in the funds as an annual contract maintenance charge. The actual amount we deduct may vary by state. 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, this charge is waived if your contract value is $100,000 or greater when we are to assess the charge. Subject to state regulations, we will deduct the annual contract maintenance charge proportionately from your contract value invested in the funds.

If you make a full withdrawal from your contract, we will deduct the full annual contract maintenance charge. If your contract enters the income phase on a date other than its contract anniversary, we will deduct a pro rata portion of the charge.

Contingent Deferred Sales Charge (CDSC)

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

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

The amount of the charge depends on:

1) how much you withdraw or apply to Annuity Option E; and
2) the length of time between when we issued your contract and when you make a withdrawal or apply a portion or all of your contract value to Annuity Option E.

The contract has a seven year contingent deferred sales charge schedule. In most states, when we issue your contract, you may elect a nine year contingent deferred sales charge schedule instead of the standard seven year contingent deferred sales charge schedule. We will provide a credit to your contract value if you elect that schedule. See "Additional Features" for more information.

7 Year Contingent Deferred Sales Charge Schedule	
Contract Year When Withdrawal is Made or Contract Value is Applied to Annuity Option E	***Charge*** **(as a percentage of amount withdrawn or applied 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%

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, CDSC 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 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 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.

Free Withdrawals

The contract has a standard 10% free withdrawal provision. In most states, when we issue your contract you may elect a 10%/20% free withdrawal provision instead of the 10% free withdrawal provision for an additional charge. See "Additional Features – 10%/20% Free Withdrawal Feature."

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 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.

If you are participating in MassMutual Lifetime Income Protector, we waive the contingent deferred sales charge for free withdrawals according to this provision. However, if all or a portion of a free withdrawal is an excess withdrawal as defined in "Additional Features – MassMutual Lifetime Income Protector," the excess withdrawal will negatively impact the MassMutual Lifetime Income Protector benefit.

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 full 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, if you are receiving variable payments, 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 which 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. See each fund's prospectus for more information regarding these expenses.

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.

Electronic Funds Transfer and Annuity Payments. You may receive annuity payments by electronic funds transfer (EFT). However, we only allow an EFT of your annuity payments to one account. When you set up an EFT, the account number you provide to us must be used for all annuity payments you receive from the contract and from any other contract we or our affiliates may issue to you. You may change the account number at any time.

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 must be at least 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:

1) the 100th birthday of the annuitant;
2) your 100th birthday if you are not the annuitant or the 100th birthday of the oldest joint owner; or
3) the latest date permitted under state law.

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 after you reach age 70½. For qualified plans, that date is no later than April 1 of the calendar year following the later of: the year you reach age 70½ or 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;
- 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 application 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.

For a discussion of how fixed payments are calculated if you apply your GMIB value to an annuity option see "Appendix C – Additional Features – Guaranteed Minimum Income Benefit."

Variable Annuity Payments. If you choose variable payments, the payment amount will vary with the investment performance of the funds. 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 application 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 selected. 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.

For a discussion of whether variable payments are available if you apply your GMIB value to an annuity option, when you can apply your GMIB value to an annuity option and how such variable payments would be calculated see "Appendix C – Additional Features – Guaranteed Minimum Income Benefit."

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 IRC may impose restrictions on which annuity option you may elect. 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.	100% of the payment will continue during the lifetime of the surviving annuitant. No payments will continue after the death of both annuitants.	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.

Non-Lifetime Contingent Options (variable and/or fixed payments)	
	Annuity Option E Period Certain Annuity
Number of Annuitants	One
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. 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 and SIMPLE IRAs) or Roth IRA and the sole primary beneficiary is your spouse, he or she may elect to become the owner of the contract with contract value equal to the death benefit amount payable.

Death Benefit Amount During the Accumulation Phase

The death benefit amount depends upon the death benefit feature in effect at the time of your death or, if the contract is owned by a non-natural entity, the annuitant's death. The contract offers three Death Benefit features:

- Basic Death Benefit
- Annual Ratchet Death Benefit
- Contract Value Death Benefit

We do not assess an additional charge for the Basic Death Benefit. The availability of certain death benefit options may be limited for tax-qualified contracts in order to comply with the required minimum distribution rules, and are not available if you are a certain age. These details are included in our description of each death benefit feature.

For detail regarding the Annual Ratchet Death Benefit and the Contract Value Death Benefit see "Additional Features – Additional Death Benefit Features."

You may only have one elected death benefit feature at any time. You may add or terminate a death benefit feature effective 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 30 calendar days prior to your contract anniversary date. Your first contract anniversary is one calendar year from the date we issued your contract.

Basic Death Benefit – (Version 9/1/07)

For contracts applied for on or after 9/1/2007 (subject to state availability). You may only elect this feature if you are under age 76 at the time you make the election.

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.

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 greater of your contract value, or your purchase payments reduced by an adjustment for withdrawals and any applicable charges.

We calculate the adjustment for withdrawals as follows:

- 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 adjusted purchase payments.

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 is lower due to market performance or other variables.

If you are participating in MassMutual Lifetime Income Protector, any portion of a withdrawal that is an excess withdrawal will result in an adjustment for withdrawals as just described. Any portion of a withdrawal that is not an excess withdrawal will reduce the death benefit on a dollar for dollar basis. See "Additional Features – MassMutual Lifetime Income Protector."

If you are participating in MassMutual Lifetime Payment Plus, any portion of a withdrawal that exceeds the Guaranteed Lifetime Withdrawal Amount or, if applicable, the Guaranteed Withdrawal Amount, will result in a proportional adjustment for withdrawals as just described. However, any portion of a withdrawal that is not in excess of the Guaranteed Lifetime Withdrawal Amount or Guaranteed Withdrawal Amount, if applicable, or which is part of a required minimum distribution we calculate under an automatic distribution program, will reduce the death benefit on a dollar for dollar basis. See "Appendix C – Additional Features – MassMutual Lifetime Payment Plus."

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 for Contracts Applied for Prior to 9/1/2007

(also available to all contracts issued in states where Version 9/1/07 was unavailable)

You may only elect this feature if you are under age 80 at the time you make the election.

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 reduced by an adjustment for withdrawals and any applicable charges. We calculate the adjustment for withdrawals as follows:

- 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 adjusted purchase payments.

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 is lower due to market performance or other variables.

At age 80 and beyond, the value of the Basic 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.”

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 required minimum distribution rules.

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 5 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 1 year of the date of your death or the death of any joint owner.

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 and SIMPLE IRAs) or Roth IRA may elect option 1, option 2, or may elect to continue the contract. Generally, if the contract is continued then:

1) the initial value will equal the death benefit amount;
2) all applicable contract features and benefits will be in the surviving spouse’s name; and
3) the surviving spouse will exercise all of the contract owner’s rights under the contract.

Exceptions are as follows:

a) 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;
b) 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.

We further limit the surviving spouse’s rights applicable to continuing MassMutual Lifetime Income Protector and MassMutual Lifetime Payment Plus. See “Additional Features – MassMutual Lifetime Income Protector – Payment of the Contract’s Death

Benefit and MassMutual Lifetime Income Protector" and "Appendix C – Additional Features – MassMutual Lifetime Payment Plus – Payment of the Contract's Death Benefit and MassMutual Lifetime Payment Plus." 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 Payments. 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.

Benefit Management Account. For lump sum payments of at least $10,000, your beneficiary may elect to receive the death benefit by establishing an interest-bearing draft account called the Benefit Management Account (BMA). We periodically set the interest rate we credit to the BMA. That rate will not be less than the minimum guaranteed interest rate provided under the BMA. We will send a draftbook to the beneficiary who will have access to all the monies in the account, including interest, by writing a draft for all or part of the proceeds. Our drafts are similar to checks. The minimum draft amount is $250. If the account balance falls below $1,000, the BMA will be closed automatically and a check for the remaining balance, including interest, will be sent to the beneficiary. The beneficiary may close the BMA at any time. No deposits may be paid into the BMA. The BMA is part of our general account and is subject to the claims of our creditors. The BMA is not a bank account or bank deposit and is not insured by the Federal Deposit Insurance Corporation. We may make a profit on amounts left in the BMA. If the contract has been assigned, the BMA is not available for the assignee's portion of the death benefit. The BMA may not be available in all states. We reserve the right to make changes in the terms and conditions of the BMA. Election of the BMA shall be treated as an election of a lump sum for tax reporting purposes under IRC Section 72(s) or 401(a)(9). Any interest paid on amounts in the BMA is taxable as ordinary income in the year such interest is credited.

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, a 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 or other qualified contract 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.

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.
- 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 the original owner would have attained age 70½. 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 after attaining age 70½ 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.
- If a Beneficiary IRA is established under a new or existing contract described in this prospectus, the following optional features are unavailable: MassMutual Lifetime Income Protector, the Guaranteed Minimum Accumulation Benefit, MassMutual Lifetime Payment Plus, the Basic Guaranteed Minimum Income Benefit (Basic GMIB) and the Guaranteed Minimum Income Benefits called MassMutual Guaranteed Income Plus 5 (GMIB 5) and MassMutual Guaranteed Income Plus 6 (GMIB 6).
- Previously, the GMIB 5 and GMIB 6 were available if a Beneficiary IRA was established with a new annuity contract that offered the GMIB 5 and GMIB 6. If a Beneficiary IRA was established with a new annuity contract and the GMIB 5 or GMIB 6 was elected, the owner of that contract should understand how withdrawals in the contract may affect the feature benefits. For example, RMDs that exceed the current contract year interest earned on the GMIB value will reduce the GMIB value on a pro-rata basis. If a beneficiary established a Beneficiary IRA with a GMIB 5 or GMIB 6, the IRS may take the position that the inclusion of these benefits will not allow the contract to meet the RMD rules in certain instances without a complete surrender of the contract. Even if the RMD rules could be met, the value of either the GMIB 5 or GMIB 6 may be adversely impacted or eliminated if the beneficiary is required to commence RMDs prior to the time the GMIB 5 or GMIB 6 benefit could be exercised.
- 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.
- 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.

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 and the annuitant dies, you may not name a new annuitant. In this case we will treat the death of the annuitant as the death of the owner and pay the death benefit as described in the "Death of Contract Owner During the Accumulation Phase" and "Death of Contract Owner During the Income Phase" sections.

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.

Additional Features

Overview

For an additional charge or credit certain features are available for you to elect. You must elect these features when you apply for a contract unless otherwise stated. Except for MassMutual Lifetime Income Protector, if we allow you to elect an additional feature after you apply for a contract, the effective date of your election will 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 contract. Certain features may no longer be available or may not be available in all states.

Additional Features with an Additional Charge. Details regarding each feature appear later in this section.

Feature	Only Available to Elect at Contract Issue	Once Elected, Can Be Cancelled
MassMutual Lifetime Income Protector available on or after 1/11/2010 subject to state availability	Yes Except as described under "Additional Features – MassMutual Lifetime Income Protector – Election After Contract Issue"	No
10%/20% Free Withdrawal Feature	Yes	No
Nursing Home Waiver Benefit	Yes	Yes
Annual Ratchet Death Benefit	No, you may elect at contract issue or on any contract anniversary	Yes
Guaranteed Minimum Accumulation Benefit	Yes	Yes

Additional Feature Providing a Credit. Details regarding this feature appear later in this section.

Feature	Only Available to Elect at Contract Issue	Once Elected, Can Be Cancelled
Nine Year Contingent Deferred Sales Charge Feature [1]	Yes	No

1 *This feature does not result in an additional annual charge. However, it will result in a higher contingent deferred sales charge percentage in certain years and a longer contingent deferred sales charge period than the standard contingent deferred sales charge available under the contract.*

Additional Features Providing a Credit with No Additional Charge. Details regarding each feature appear later in this section.

Feature	Only Available to Elect at Contract Issue	Once Elected, Can Be Cancelled
Contract Value Death Benefit (for contracts issued in certain states and for all contracts issued prior to 9/1/2007, the credit ends at age 80)	No, you may elect at contract issue or on any contract anniversary.	Yes
Electronic Document Delivery Credit	No, you may elect at any time.	Yes
Case Size Credit	You do not elect this feature. You are automatically eligible based on your contract value.	You do not elect or cancel this feature. You are automatically eligible based on your contract value.

Additional Features with an Additional Charge. Details regarding each feature appear in "Appendix C – Additional Features."

Feature	Only Available to Elect at Contract Issue	Once Elected, Can Be Cancelled
Guaranteed Minimum Income Benefit (Basic GMIB, GMIB 5 and GMIB 6)	Yes	Yes
MassMutual Lifetime Payment Plus	Yes	Yes
Equalizer Benefit	Yes	Yes

Charges for Additional Features

This section pertains to all additional features except MassMutual Lifetime Income Protector, MassMutual Guaranteed Income Plus 5, MassMutual Guaranteed Income Plus 6, and MassMutual Lifetime Payment Plus. For an explanation of charges for those features see "Appendix C – Additional Features – Guaranteed Minimum Income Benefit," "Appendix C – Additional Features – MassMutual Lifetime Payment Plus" and "Additional Features – MassMutual Lifetime Income Protector."

If you elect one or more features that we offer with an additional charge, we will deduct an additional charge from your contract value. Charges for additional features are in addition to the standard contract expenses.

Charges in the First Contract Year. If you elect a feature that we offer with an additional charge, we list that charge as a percentage. In the first contract year, we will deduct that percentage from your purchase payments received by us during the first contract year as each purchase payment is received. For example, when you purchase the contract, if you elect two additional features and we charge 0.40% for one and 0.25% for the other, we will deduct from your contract value 0.65% of your initial purchase payment. We will also make a deduction from each subsequent purchase payment during the first contract year. The percent deducted will be adjusted to reflect the number of days remaining in the contract year. This charge will be in addition to charges for any other additional features elected and in addition to the standard contract expenses.

Charges On and After Your First Contract Anniversary. 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. For example, if you elect two additional features and we charge 0.40% for one and 0.25% for the other, on each contract anniversary we will deduct from your contract value 0.65% of your contract value as of the day just prior to that anniversary. This charge will be in addition to charges for any other additional features elected and in addition to the standard contract expenses.

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).

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.

When Do Charges End? To answer this question, read the detail in this section for each specific feature. Certain features you can cancel effective on any contract anniversary and we will no longer deduct a charge after that time. Other features expire after a certain number of contract years, at which time we will no longer deduct a charge. If you surrender your contract, we will not reimburse you for any prepaid charge for an additional feature.

Credits for Additional Features

Certain features of this contract involve the payment of a credit. If you elect any of these features, your contract expenses may be higher with the feature than without them. The amount of any credits may be more than offset by the charges for your elected features.

Except for the Electronic Document Delivery Credit described in "Additional Features – Electronic Document Delivery Credit," we calculate all credits based on your contract value as of the end of the contract year. For example, if you elect an additional feature and we credit you 0.05%, on each contract anniversary following your election, we will credit your contract value with 0.05% of your contract value as of the day just prior to that anniversary. We will apply credits proportionally to the funds that you are invested in as of the date we calculate the credit. If you do not have any contract value in the funds at such time, the credit will be applied to a money market fund.

No credits will be provided should you surrender your contract prior to your contract anniversary.

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.

Nine Year Contingent Deferred Sales Charge Feature

Credit: 0.10%

For additional detail see "Additional Features – Credits for Additional Features."

The contract 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. You may only elect this additional feature at the time you apply for a contract. Once elected you cannot cancel this feature.

Election of the nine year contingent deferred sales charge feature will result in a higher contingent deferred sales charge percentage in certain years and a longer contingent deferred sales charge period than the standard contingent deferred sales charge available under the 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	**Charge** ***(as a percentage of amount withdrawn or applied to Annuity Option E)***
1	8%
2	8%
3	7%
4	6%
5	5%
6	4%
7	3%
8	2%
9	1%
10 or more	0%

See the "Table of Fees and Expenses" for a comparison of the standard and optional nine year contingent deferred sales charge schedules.

10%/20% Free Withdrawal Feature

Current Charge (on an annual basis): 0.25% of contract value
Maximum Charge (on an annual basis): 0.35% of contract value

We may increase the current charge at any time while you own the contract, but it will never exceed the maximum charge.

For additional detail on charge deduction see "Additional Features – Charges for Additional Features."

The contract has a standard 10% free withdrawal provision. For an additional charge of 0.25% of contract value on an annual basis, 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 may only 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. Once elected you cannot cancel this feature.

If you are participating in MassMutual Lifetime Income Protector, we waive the contingent deferred sales charge for free withdrawals according to this provision. However, if all or a portion of a free withdrawal is an excess withdrawal as defined in "Additional Features – MassMutual Lifetime Income Protector," the excess withdrawal will negatively impact the MassMutual Lifetime Income Protector benefit.

Nursing Home Waiver Benefit

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

Current Charge (on an annual basis): 0.05% of contract value
Maximum Charge (on an annual basis): 0.10% of contract value

We may increase the current charge at any time while you own the contract, but it will never exceed the maximum charge.

For additional detail on charge deduction see "Additional Features – Charges for Additional Features."

For an additional charge, you may elect the nursing home waiver benefit. If you elect the nursing home waiver benefit, we currently deduct an additional charge of 0.05% of contract value on an annual basis. We may increase this charge at any time while you own the contract, but the charge will never exceed 0.10% of contract value on an annual basis. We will assess this charge while the contingent deferred sales charge schedule is in effect.

You may only elect this additional feature at the time you apply for a contract. You may cancel this feature at any time. The cancellation will be effective on the contract anniversary following your request.

If you elect this feature, 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 an annuitant, if the owner is a non-natural person) have been admitted to a licensed nursing care facility after your purchase of the contract subject to the following requirements:

- You are past your first contract year.
- If you resided in a licensed nursing care facility within two years prior to contract issue, the benefit is not available to you; however, for contracts issued in New York, if the waiver is unavailable to you for this reason, you will automatically become eligible two years following the date of discharge from a licensed nursing care facility.
- Your stay in a licensed nursing care facility is prescribed by a physician and is medically necessary.
- 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 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.

Additional Death Benefit Features

Overview. The death benefit amount depends upon the death benefit feature in effect at the time of your death or, if the contract is owned by a non-natural entity, the annuitant's death. The contract offers three death benefit features:

- Basic Death Benefit (described in "Death Benefit");
- Annual Ratchet Death Benefit (described below);
- Contract Value Death Benefit (described below).

Certain additional death benefit features may not be available in all states. You cannot elect the Annual Ratchet Death Benefit if you are participating in MassMutual Lifetime Income Protector. Some death benefit features are not available if you are a certain age. These details are included in our description of each death benefit feature.

You may have only one elected death benefit feature at a time. 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 change your death benefit feature at any time and the change will be effective on your following contract anniversary.

If your death benefit amount is greater than your contract value at the time you change death benefit features, 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.

Annual Ratchet Death Benefit

Current Charge (on an annual basis): 0.40% of contract value
Maximum Charge (on an annual basis): 0.90% of contract value

We may increase the current charge at any time while you own the contract, but it will never exceed the maximum charge.

For additional detail on charge deduction see "Additional Features – Charges for Additional Features."

For an additional charge, at time of contract issue or effective on any contract anniversary, you may elect the Annual Ratchet Death Benefit. If you are participating in MassMutual Lifetime Income Protector, you cannot elect this 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.

The amount of the Annual Ratchet Death Benefit will be the greatest of:

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

The Highest Anniversary Value

If you elect the Annual Ratchet Death Benefit 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 the lesser of your contract value or your purchase payments less withdrawals as of 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:

a) the most recently calculated highest anniversary value; or

b) your contract value on the date of the recalculation.

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.

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.

When we adjust purchase payments for subsequent withdrawals, if you have elected MassMutual Lifetime Payment Plus, any portion of a withdrawal that exceeds the Guaranteed Lifetime Withdrawal Amount or, if applicable, the Guaranteed Withdrawal Amount, will result in a proportional adjustment for withdrawals as just described. However, any portion of a withdrawal that is not in excess of the Guaranteed Lifetime Withdrawal Amount or Guaranteed Withdrawal Amount, if applicable, or which is part of a required minimum distribution we calculate under an automatic distribution program, will reduce the purchase payments on a dollar for dollar basis. See "Appendix C – Additional Features – MassMutual Lifetime Payment Plus."

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 is lower due to market performance or other variables.

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.

Cost of the Annual Ratchet Death Benefit

If you elect the Annual Ratchet Death Benefit, we will deduct an additional charge of 0.40% of contract value on an annual basis while the death benefit feature is in effect. We may increase this charge at any time while you own the contract, but the percentage will never exceed 0.90% of contract value on an annual basis.

Contract Value Death Benefit

Current Credit: 0.05%
Minimum Credit: 0.02%

For additional detail see "Additional Features – Credits for Additional Features."

If you elect the Contract Value Death Benefit, 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. You may elect this feature at the time of contract issue or effective on a contract anniversary. 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.

For contracts issued in certain states and for all contracts issued prior to 9/1/2007, if you or the oldest joint owner (or the annuitant, if the contract is owned by a non-natural person) are age 80 or beyond, we do not provide an annual credit to your contract value.

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."

Electronic Document Delivery Credit

Current Credit: $24 per year

We will provide an annual $24 credit to your contract on your contract anniversary 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 an electronic format rather than paper format. Examples of these documents include the prospectus, prospectus supplements, and annual and semiannual reports of the underlying funds.

For instructions on how to participate, call our Service Center.

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.

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

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 continue, modify or terminate this credit feature at any time.

Case Size Credit

Current Credit: 0.05% to 0.10% (depending on case size)

For additional detail see "Additional Features – Credits for Additional Features."

We will provide a credit 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 your 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.

Guaranteed Minimum Accumulation Benefit (GMAB)

See sub-section "Cost of the GMAB" for details about charges for this feature. For additional detail on charge deduction see "Additional Features – Charges for Additional Features."

What is the GMAB? If you elect the GMAB, we guarantee that at the end of your benefit period your contract value will equal no less than a specified amount called the GMAB value. The GMAB may provide protection in the event of lower contract values that may result from the investment performance of the contract.

If you elect the GMAB, you must choose one of two available benefit periods: the 10 year benefit period with reset option or the 20 year benefit period. You may only make this choice at the time your contract is issued.

10 Year Benefit Period with Reset Option. You may elect a 10 year benefit period with an option to reset. This benefit period will initially end upon your tenth contract anniversary, with the option to reset the benefit period as of your second contract anniversary and each subsequent contract anniversary up to and including the end of the benefit period.

The Reset Option

The option to reset means that on your second contract anniversary, and each subsequent contract anniversary while a benefit period is in effect, you may elect to reset your GMAB value. If, at the time of reset, your contract value exceeds the GMAB value, then we will reset your GMAB value so it equals your contract value as of the close of the NYSE at the end of the last business day prior to the contract anniversary on which you elect to reset. If your GMAB value is reset, your 10 year benefit period will start over again. For example, if you reset your GMAB value as of your second contract anniversary, your 10 year benefit period will end on your 12th contract anniversary.

If you want to request a reset for your upcoming contract anniversary, you must submit a written request in good order to our Service Center within 60 calendar days prior to the close of the NYSE on that contract anniversary. If we receive your request outside of the 60 day window, your request will not be implemented.

If you request a reset and on the date we are to implement the reset your contract value is less than the current GMAB value, the reset will not occur and the existing benefit period and GMAB value will remain in place.

After you reach age 90 (age 80 for contracts issued in New York), the reset option is no longer available to you.

If we issued your contract prior to June 1, 2005, and you elected the GMAB feature when your contract was issued, your 10 year GMAB feature will remain the same except now it will include the reset option.

20 Year Benefit Period. You may elect a 20 year benefit period (26 year benefit period for contracts issued in New York). This option does not include a reset feature and it is not available in contracts issued prior to June 1, 2005.

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."

Allocation Restrictions. If you elect the GMAB, you must participate in an approved Asset Allocation Program. See "Transfers and Transfer Programs – Asset Allocation Programs."

If you elect the GMAB, you cannot participate in the Separate Account Dollar Cost Averaging Program, the Interest Sweep Option, a DCA Fixed Account or the Automatic Rebalancing Program. Additionally, you cannot make allocations to the fixed accounts.

Additional Restrictions. If you elect the GMAB, you may not elect a Guaranteed Minimum Income Benefit, MassMutual Lifetime Payment Plus or MassMutual Lifetime Income Protector.

Eligibility for the GMAB Value. You will be eligible to receive the GMAB value if:

1) you elected the GMAB at time of contract issue and you do not cancel the GMAB;
2) you remain in your contract until the end of your benefit period and do not apply all of your contract value to an annuity option before the end of your benefit period; and
3) you participated in an approved Asset Allocation Program at the time of contract issue, and remain in the program until the end of your benefit period. (See "Transfers and Transfer Programs – Asset Allocation Programs").

If you elect the GMAB, but items (2) and (3) are not met, you will not be eligible to receive the GMAB value, even though you have paid for the feature. At the end of your benefit period the GMAB will terminate. No benefits or charges will accrue thereafter.

How Do We Calculate the GMAB Credit and the GMAB Value? If we have never applied a reset, then your GMAB credit equals the difference between:

A) your contract value at the end of the benefit period; and

B) the GMAB value.

If you elected the 10 year benefit period the GMAB value equals the amount of purchase payments you made to the contract during the first two contract years adjusted for withdrawals.

If you elected the 20 year benefit period (26 year benefit period for contracts issued in New York) the GMAB value equals the amount of purchase payments you made to the contract during the first two contract years multiplied by two and adjusted for withdrawals.

If B is greater than A, then we will credit your contract value with the difference. If B is equal to or less than A, we will not credit your contract value.

If any purchase payments were made after the first two contract years, then we adjust the calculation by determining what percentage of all purchase payments were made in the first two contract years and then we multiply A by that percentage. See "Appendix E – Guaranteed Minimum Accumulation Benefit Examples – Example 4."

If we previously applied a reset, then your GMAB credit equals the difference between:

X) your contract value at the end of the benefit period; and

Y) the GMAB Value. The GMAB Value equals your contract value as of the most recent reset adjusted for subsequent withdrawals.

If Y is greater than X, then we will credit your contract value with the difference. If Y is equal to or less than X, we will not credit your contract value.

If any purchase payments were made after the most recent reset, we multiply X by the following percentage:

i) your contract value as of the most recent reset; divided by

ii) your contract value as of the most recent reset plus any subsequent purchase payments.

Adjustment for Withdrawals

For all benefit periods, the adjustment for withdrawals is calculated as follows:

- 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 GMAB value.

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

What Happens at the End of the Benefit Period? At the end of the benefit period, we calculate the GMAB value and the GMAB credit. We credit your contract value if the GMAB credit is greater than zero. Any credit to your contract value will be applied the first business day after the end of the benefit period.

At the end of the benefit period your election of the GMAB terminates with no benefits or charges accruing thereafter.

For additional information see "Appendix E – Guaranteed Minimum Accumulation Benefit Examples."

Payment of Any Credit. Any credit paid due to your election of GMAB will be applied proportionally to the funds you are invested in when we apply the credit. If you are not invested in any funds at that time, we will automatically apply the credit to a money market fund. Electing GMAB does not guarantee a credit will be paid.

Cost of the GMAB. If you elect the GMAB, we will deduct an additional charge from your contract value. The charge varies by contract issue date: 0.95% of contract value on an annual basis (for contracts issued on or after 5/1/2010); 0.45% of contract value on an annual basis (for contracts issued on or after 9/1/2006 and prior to 5/1/2010); and 0.35% of contract value on an annual basis (for contracts issued prior to 9/1/2006). We may increase this charge at any time while you own the contract, but the charge will never exceed 1.00% of contract value on an annual basis. There is no additional charge for the reset option on the 10 year GMAB feature. At the end of the benefit period the charge will be discontinued. If you elect to discontinue the GMAB and its associated benefit, the charge will be discontinued when we receive your request in good order at our Service Center, and we will apply a proportionate credit of the remaining prepaid charge to your contract value. For additional detail on charges for this feature see "Additional Features – Charges for Additional Features."

How to Elect the GMAB. To elect the GMAB, you must:

- elect the GMAB at the time your contract is issued; and
- elect to participate in an approved Asset Allocation Program (see "Transfers and Transfer Programs – Asset Allocation Programs").

Additionally, at the time we issue your contract, you must meet the age requirements as follows:

To elect the 10 year benefit period you must not have attained age 90 (age 80 for contracts issued in New York).

To elect the 20 year benefit period (26 year benefit period for contracts issued in New York) you must not have attained age 80 (age 64 for contracts issued in New York).

Once we issue your contract, you cannot elect the GMAB.

Canceling the GMAB. We will terminate your election of the GMAB on the business day we receive our form in good order at our Service Center. We will apply a proportionate credit of the remaining prepaid charge to your contract value. Once the GMAB is terminated, it cannot be re-elected.

Important GMAB Considerations. This benefit may not be appropriate for all contract owners. You should understand the GMAB completely before you elect this benefit feature. Please consult with a qualified financial professional when you are evaluating the GMAB and all other aspects of the contract.

The GMAB does not in any way guarantee the performance of any of the investment choices available under the contract.

The restriction in the amount and type of investment choices that are available to you under the GMAB is intended to help us manage the risk that we will be required to credit your contract value as a result of the GMAB.

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 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.

Withdrawals will negatively impact the GMAB value. The GMAB value may be reduced by more than the actual dollar amount of the withdrawal. The reductions will be greater when the value of your contract is lower due to market performance or other variables. See "Appendix E – Guaranteed Minimum Accumulation Benefit Examples – Example 3."

To receive any potential benefit from this feature, you must participate in the GMAB for the full benefit period.

MassMutual Lifetime Income Protector

Available to contracts issued on or after 1/11/2010, subject to state availability. Certain aspects of this feature may vary by state.

See sub-section "Cost of MassMutual Lifetime Income Protector" for detail about charges for this feature.

Changes to an owner (or an annuitant, if the owner is a non-natural person) may terminate MassMutual Lifetime Income Protector. Changes to the beneficiary may reduce the value of the benefit.

Excess withdrawals will reduce and may eliminate the value of the guarantees provided by this feature. See "Appendix I – MassMutual Lifetime Income Protector Examples – Example 5."

What is MassMutual Lifetime Income Protector? MassMutual Lifetime Income Protector is an optional feature you can add to your contract for an additional charge. MassMutual Lifetime Income Protector provides that even if your contract value is reduced to zero, you will receive a guaranteed minimum level of income for the life of the "covered person(s)," generally you or you and your spouse. Lifetime income is distributed through annual withdrawals from your contract value. If your contract value is reduced to zero, then lifetime income is distributed through settlement payments, provided the terms and conditions of the feature are met.

MassMutual Lifetime Income Protector may not be appropriate for you if you are interested in maximizing the contract's potential for long-term accumulation and tax deferral rather than taking current withdrawals and ensuring a stream of income for life.

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."

Election at Contract Issue. To elect MassMutual Lifetime Income Protector at the time we issue your contract:

1) your initial purchase payment must be $25,000 or greater;
2) the younger covered person must be under age 76;
3) your contract must be issued in a state where we offer MassMutual Lifetime Income Protector; and
4) you must allocate your purchase payment to an approved Asset Allocation Program (see "Transfers and Transfer Programs – Asset Allocation Programs").

If you elect MassMutual Lifetime Income Protector, you cannot elect the Annual Ratchet Death Benefit or a Guaranteed Minimum Accumulation Benefit.

Participation in the SWP is allowed only when you commence withdrawals of the annual income amount on or after the income eligibility date. See "Withdrawals of the Annual Income Amount" later in this section for additional information.

Election After Contract Issue. If we issued your contract after September 14, 2009 and MassMutual Lifetime Income Protector was not available to elect on your application, then you were eligible to make your election after we issued your contract, subject to the following:

1) your contract value was $25,000 or greater on the date we received your election request in good order;
2) the younger covered person must have been under age 76 on the date we received your election request in good order at our Service Center; and
3) we must have received your election request on our form in good order at our Service Center within 60 calendar days after the date we began offering MassMutual Lifetime Income Protector in the state where your contract was issued.

If you meet all the requirements for election after contract issue, but we did not issue your contract within 60 days of the feature becoming available solely because we were waiting for additional funds relating to an IRC Section 1035 exchange or qualified transfer, then we amend (3) to read as follows: we must have received your election request on our form at our Service Center within 60 calendar days after the date we issued your contract.

We reserve the right to modify or terminate this program at any time without notice.

You cannot elect MassMutual Lifetime Income Protector if your contract has:

a) a current election of the Annual Ratchet Death Benefit;
b) a current election of a Guaranteed Minimum Accumulation Benefit; or
c) contract value in a fixed account.

When you elect MassMutual Lifetime Income Protector we will cancel any transfer programs you currently participate in and require you to transfer your contract value into an approved Asset Allocation Program. If you are participating in the SWP when you elect this feature, we will cancel the SWP because early withdrawals have a negative impact on the feature.

Covered Person(s). If you have the single life version, one covered person will be named. If you have the joint life version, two covered persons will be named. The younger covered person must be under age 76 when MassMutual Lifetime Income Protector is elected. The covered person(s) is significant because:

1) the life of the covered person(s) is used to determine the amount and duration of lifetime income; and
2) the income eligibility date is based in part on the younger covered person's age.

Single Life Version and Covered Person Requirements

The single life version can be elected only if your contract is a non-qualified contract, non-qualified deferred compensation contract (non-457) or an Individual Retirement Annuity, including traditional, SEP, SIMPLE, Roth or Custodial IRAs.

- If your contract is individually owned, the covered person must be the owner.
- If the owner is a non-natural person, the covered person must be the annuitant.
- If there are joint owners, they must be spouses and the only primary beneficiaries. The covered person is the first named owner on the application.

Joint Life Version and Covered Person Requirements

The joint life version can be elected only if your contract is a non-qualified contract or an Individual Retirement Annuity, including traditional, SEP, SIMPLE or Roth, excluding Custodial IRAs. If the contract is sold as a non-qualified contract with a trust ownership, the trust must be a grantor trust.

- If your contract is individually owned, the covered person must be the owner. The second covered person must be the spouse of the owner and sole primary beneficiary.
- If the owner is a non-natural person, the covered person must be the annuitant. The second covered person must be the spouse of the annuitant and the sole primary beneficiary.
- If there are joint owners, the covered persons must be spouses, and the only primary beneficiaries.

Change from Joint Life to Single Life

We only allow a change from the joint life version to the single life version if:

1) the change is due to the death of a covered person or a change in marital status of a covered person due to a divorce;
2) the change is made prior to the income start date; and
3) we receive notification in good order at our Service Center before the income start date.

When we change the joint life version to the single life version we base the income percentage on the remaining covered person's age as of the income start date using the single life income percentages. The income eligibility date will be based on the remaining covered person's age.

We do not allow a change from the single life version to the joint life version.

Important Terms

Income Eligibility Date. On and after the income eligibility date you can elect to commence withdrawals of the annual income amount. The income eligibility date is the later of:

1) the contract anniversary when the younger covered person is age 60; and
2) your fifth contract anniversary following the date we add MassMutual Lifetime Income Protector to your contract.

Income Start Date. The income start date is the date of the first withdrawal on or after the income eligibility date. It is also the date we require you to elect the SWP and commence automated withdrawals of the annual income amount.

Annual Income Amount. We calculate the annual income amount on the income eligibility date and on each subsequent contract anniversary. The annual income amount equals the applicable income percentage multiplied by your contract value on your most recent contract anniversary. Withdrawals of the annual income amount are not subject to any contingent deferred sales charge. *The annual income amount will vary each contract year, but it will never be less than the guaranteed income floor.*

Guaranteed Income Floor. The guaranteed income floor is the minimum annual income amount available each contract year on or after the income eligibility date. In addition, the guaranteed income floor is the amount that will be distributed if your contract moves to the settlement phase.

We calculate the guaranteed income floor on the income eligibility date, on each subsequent contract anniversary prior to the settlement phase, and after any excess withdrawal. We calculate the guaranteed income floor by multiplying the applicable income percentage by the income base. Once your contract enters the settlement phase the guaranteed income floor no longer changes.

Income Base. We use the income base to calculate the guaranteed income floor. The income base is not available to withdraw. The income base can never exceed $5,000,000.

The income base is equal to:

1) your contract value on the date we add MassMutual Lifetime Income Protector to your contract;
2) plus any additional purchase payments received after the date we add the feature to your contract, but prior to your second contract anniversary;
3) adjusted for excess withdrawals. We explain the adjustment for excess withdrawals under "Additional Features – MassMutual Lifetime Income Protector – Excess Withdrawals and the Income Base."

Income Percentage. The initial income percentage is based on the younger covered person's age on the income start date. On any subsequent contract anniversary the income percentage will be increased if on that contract anniversary:

1) your contract value (less any purchase payments made more than two years after your contract issue date) is greater than the income base; and
2) the income percentage based on the age of the younger covered person is greater than your current income percentage. On any contract anniversary following the death of the younger covered person we will use the age of the surviving covered person.

The income percentage will never decline.

Single Life Version		Joint Life Version	
Age	*Income Percentage*	*Age*	*Income Percentage*
60 – 64	4.0%	60–64	3.5%
65 – 69	4.5%	65–69	4.0%
70 – 74	5.0%	70–74	4.5%
75 – 79	5.5%	75–79	5.0%
80 – 84	6.0%	80–84	5.5%
85 and over	6.5%	85 and over	6.0%

Excess Withdrawals. Excess withdrawals are defined as:

1) any withdrawal prior to the income eligibility date including:
   a) amounts withdrawn under Internal Revenue Code required minimum distribution (RMD) rules; and
   b) amounts withdrawn in accordance with the contract's free withdrawal provision described in "Expenses – Free Withdrawals;" and
2) the portion of any withdrawal on or after the income eligibility date that causes the total withdrawn in a contract year to exceed the current annual income amount. This includes any amount withdrawn in accordance with the contract's free withdrawal provision that exceeds the current annual income amount.

Exception for RMDs

Any withdrawal taken on or after the income eligibility date to satisfy RMD rules which is in excess of the annual income amount will not be treated as an excess withdrawal provided the following conditions are met:

a) it must be taken as part of our RMD program;
b) the RMD amount must be calculated using only the assets held under the contract;
c) the RMD must be for the current calendar year; and
d) in any one contract year, RMD withdrawals for only a single calendar year can be taken.

We will not contact you before processing your request for an excess withdrawal.

How MassMutual Lifetime Income Protector Works

Once you elect MassMutual Lifetime Income Protector you can make two types of withdrawals from your contract value:

- Withdrawals of the annual income amount. These withdrawals cannot begin before the income eligibility date. Once begun, these withdrawals continue until your contract value reduces to zero. If at that time the settlement phase begins, we will provide annual settlement payments until death of the last surviving covered person. See "Additional Features – MassMutual Lifetime Income Protector – Settlement Phase."
- Excess withdrawals. **Excess withdrawals may be taken at any time. They will reduce, and may eliminate, the value of the guarantees provided by this feature.**

Your withdrawals are taken from your contract value unless your contract enters the settlement phase, in which case we use our own assets to make settlement payments to you. See "Additional Features – MassMutual Lifetime Income Protector – Settlement Phase."

Examples. For examples of how the feature works see "Appendix I – MassMutual Lifetime Income Protector Examples."

Withdrawals of the Annual Income Amount. You can commence withdrawals of the annual income amount on or after the income eligibility date. Withdrawals of the annual income amount must be automated through the SWP. You cannot stop the SWP of the annual income amount once it begins, unless you enroll in the MassMutual RMD program in order to satisfy required minimum distribution rules. Withdrawals of the annual income amount are taken from your contract value. If enrolled in the RMD program, you will receive the greater of your annual income amount or your RMD amount in each contract year without it being considered an excess withdrawal.

The SWP is not available prior to the income eligibility date. On or after the income eligibility date, the SWP is available only for withdrawals of the annual income amount.

Negative Impact of Excess Withdrawals. In addition to reducing your contract value, each excess withdrawal immediately reduces the income base and the guaranteed income floor.

All excess withdrawals are subject to any applicable contingent deferred sales charge.

Excess Withdrawals and the Income Base. An excess withdrawal reduces the income base in direct proportion to the contract value reduction for the amount of the excess withdrawal.

The following formula shows the impact of an excess withdrawal on the income base.

A = B x (C/D)

Where:

- A is the income base after the excess withdrawal;
- B is the income base immediately prior to the excess withdrawal;
- C is your contract value immediately after the excess withdrawal; and
- D is your contract value immediately prior to the excess withdrawal.

If only a portion of a withdrawal is an excess withdrawal, we will first reduce your contract value by the non-excess withdrawal portion and your income base will remain the same. We will then reduce your contract value by the excess withdrawal portion and adjust the income base using the formula above.

Impact of a Request to Apply All or a Portion of Your Contract Value to an Annuity Option. We consider a request to apply all or a portion of your contract value to an annuity option as a withdrawal for the purposes of calculation of the income base, guaranteed income floor and annual income amount.

Impact of Withdrawals on the Death Benefit. If you are participating in MassMutual Lifetime Income Protector and the Basic Death Benefit, when you make withdrawals we will reduce the value of the death benefit as described in "Death Benefit – Basic Death Benefit – (Version 9/1/07)." Any withdrawal will lower your contract value. Therefore, if you are participating in the Contract Value Death Benefit any withdrawal will reduce the death benefit. See "Additional Features – Contract Value Death Benefit."

Withdrawals Before the Income Eligibility Date. Any withdrawal, including RMDs, taken prior to the income eligibility date is an excess withdrawal. Such withdrawal:

1) is subject to any applicable contingent deferred sales charge;
2) reduces your contract value;
3) reduces the income base;
4) reduces the guaranteed income floor;
5) reduces any future annual settlement payments; and
6) reduces the death benefit.

Withdrawals On or After the Income Eligibility Date

Requesting the First Withdrawal

The date of your first withdrawal is the income start date. At the time of your first withdrawal we require you to elect the SWP even if you do not want to utilize it for the first withdrawal. You cannot stop the SWP of the annual income amount once it begins, unless you enroll in the RMD program.

SWP and the Annual Income Amount

When you elect the SWP you will establish a withdrawal frequency (monthly, quarterly, semi-annually or annually) for the annual income amount. If the withdrawals are RMDs as part of the RMD program, the withdrawal frequency will be annual on each December 15. If the annual income amount is taken as part of the RMD program, you will receive the greater of the annual income amount for the contract year or the RMD amount for the calendar year.

We apportion the annual income amount for the frequency you elect. For example, if you elect an annual frequency, the first SWP withdrawal will be 100% of the annual income amount; if you elect a monthly frequency, the first SWP withdrawal will be 1/12 of the annual income amount.

If the income start date is not on your contract anniversary, we will prorate the number of SWP withdrawals based on the scheduled frequency elected. For example: a) you request a monthly frequency; b) the annual income amount is $12,000; c) the income start date occurs on the sixth month of a contract year. Therefore, in that contract year there will be seven monthly withdrawals of $1,000. We will not require that you withdraw the remaining $5,000 of the annual income amount, but you may take a withdrawal outside of the SWP. In each subsequent contract year we will require that you withdraw the entire annual income amount.

If you choose to have both a SWP and the RMD program run at the same time, you will receive your annual income amount as elected for the SWP, but each December 15, the RMD program will run and will pay the amount remaining to satisfy RMD for that calendar year. If there is any annual income amount remaining, the scheduled SWP will continue to run until it is depleted. If the entire annual income amount is withdrawn prior to the next contract anniversary, we will halt the SWP for the remainder of the current contract year. Any subsequent withdrawals prior to the next contract anniversary will be treated as an excess withdrawal.

Withdrawals Outside of the SWP

If you make withdrawals outside of the SWP, we will count those towards the annual income amount. If the entire annual income amount is withdrawn prior to the next contract anniversary, we will halt the SWP for the remainder of the current contract year. Any subsequent withdrawals prior to the next contract anniversary will be treated as excess withdrawals, unless taken as part of the RMD program. Upon the next contract anniversary we will recalculate the annual income amount and the SWP will commence, based on the frequency previously established.

Any portion of a withdrawal that exceeds the annual income amount will be considered an excess withdrawal, unless enrolled in the RMD program, which allows you to withdraw the greater of the annual income amount or required minimum distribution amount. The specific criteria that the required minimum distribution must meet are described in "Additional Features – MassMutual Lifetime Income Protector – Important Terms – Excess Withdrawals."

Settlement Phase. Your contract will enter the settlement phase if:

1) your contract value is reduced to zero; and
2) the guaranteed income floor is greater than zero.

When your contract enters the settlement phase:

a) the remaining annual income amount for that contract year is paid in accordance with the frequency previously selected;
b) beginning on the next contract anniversary settlement payments will be paid each contract year until the last surviving covered person dies;
c) all other rights and benefits under your contract, including any applicable death benefit, will terminate and additional purchase payments will not be accepted; and
d) we will no longer deduct the charge for MassMutual Lifetime Income Protector.

Amount of Settlement Payments

The annual amount of settlement payments will equal the guaranteed income floor amount calculated on the date the contract enters the settlement phase. If you are receiving settlement payments, we will treat your contract as though you had annuitized and we will report settlement payments as annuity payments for tax reporting purposes.

Frequency of Settlement Payments

You can request settlement payments be paid monthly, quarterly, semi-annually or annually. If any payment is less than $100, we reserve the right to change the payment basis to equivalent quarterly, semi-annual or annual payments or to provide an equivalent cash lump sum.

Latest Permitted Annuity Start Date. The latest permitted annuity start date is defined in "The Income Phase – Annuity Payment Start Date." If you still have contract value during the accumulation phase, once the latest permitted annuity start date is reached you must elect one of the following:

1) Apply your contract value to one of the annuity options described in "The Income Phase – Annuity Options."
2) Apply your contract value to receive payments for the life of the covered person(s). These payments will be the greater of the guaranteed income floor or the annual amount that the contract value will provide under:
   a) a life fixed annuity for the single life version; or
   b) a joint and last survivor fixed annuity for the joint life version.
3) Terminate your contract by taking a full withdrawal of your contract value.

Payment of the Contract's Death Benefit and MassMutual Lifetime Income Protector. If you have a current election of MassMutual Lifetime Income Protector and a death benefit is paid from the contract, there will be one of several outcomes:

1) If the beneficiary takes the death benefit in a lump sum under the terms of the contract, the contract will terminate and MassMutual Lifetime Income Protector will no longer be in effect.
2) If the beneficiary does not take the death benefit in a lump sum, then:
   a) If the deceased owner (or the annuitant, if the owner is a non-natural person) is the last surviving covered person, MassMutual Lifetime Income Protector will no longer be in effect. If the beneficiary is the covered person's spouse, he or she may continue the contract without MassMutual Lifetime Income Protector.

b) If the deceased owner (or the annuitant, if the owner is a non-natural person) is not the last surviving covered person, MassMutual Lifetime Income Protector will continue provided the covered person continues the contract pursuant to IRC Sections 72(s)(3) or 401(a)(9).

The right to continue the contract by a surviving spouse can only be exercised once while the contract is in effect.

Allocation Restrictions. If you elect MassMutual Lifetime Income Protector, you must participate in an approved Asset Allocation Program. See "Transfers and Transfer Programs – Asset Allocation Programs." You cannot participate in the Separate Account Dollar Cost Averaging Program, the Interest Sweep Option, a DCA Fixed Account or the Automatic Rebalancing Program. Additionally, you cannot make allocations to the fixed accounts.

Additional Purchase Payment Limits. We reserve the right to limit additional purchase payments made after the first contract year to a total of $100,000.

Cost of MassMutual Lifetime Income Protector. If you elect MassMutual Lifetime Income Protector, we will deduct a charge from your contract value. The charge is equal, on an annual basis, to a percentage of the income base as of the date the charge is deducted. Currently, the charge is 0.95% of current income base. We may increase this charge at any time while you own the contract, but the charge will never exceed 1.95% of current income base. While the feature is in effect we will deduct the charge quarterly in arrears. The charge will commence on the first contract year quarter following the date we add MassMutual Lifetime Income Protector to your contract. This charge will end on the earlier of the date your contract enters the settlement phase or the date MassMutual Lifetime Income Protector is terminated.

Termination of MassMutual Lifetime Income Protector. You cannot cancel this feature; however, it will terminate upon the earliest of the following dates:

1) when your full contract value is applied to an annuity option unless there are payments remaining under this feature;
2) when an excess withdrawal reduces your contract value to zero;
3) when you request we cancel the contract;
4) when the contract is assigned;
5) when the owner is changed, if the contract is individually owned;
6) when the annuitant is changed, if the owner is a non-natural person;
7) when there is no longer a surviving covered person;
8) when a death benefit is payable and the beneficiary takes the death benefit as a lump sum under the terms of the contract;
9) when a surviving covered person does not continue the contract upon death of a contract owner.

Once terminated the feature cannot be re-elected.

Important Considerations

Once you elect MassMutual Lifetime Income Protector you cannot cancel the feature.

You cannot stop the systematic withdrawal program of the annual income amount once it begins.

You should not elect MassMutual Lifetime Income Protector if you have a need to take withdrawals, including RMDs, before the income eligibility date, because early withdrawals have a negative impact on the feature. After the income eligibility date, excess withdrawals will reduce and may eliminate the value of the guarantees provided by MassMutual Lifetime Income Protector. Excess withdrawals include RMDs that exceed the annual income amount and do not meet specific criteria. See "Additional Features – MassMutual Lifetime Income Protector – Important Terms – Excess Withdrawals."

The free withdrawal provision described in "Expenses – Free Withdrawals" is available without an additional charge. It allows you to annually withdraw a percentage of your contract value without incurring a contingent deferred sales charge. Before electing MassMutual Lifetime Income Protector compare its benefits to those of the free withdrawal provision to determine if MassMutual Lifetime Income Protector is in your best interest.

Changes to an owner (or an annuitant, if the owner is a non-natural person) may terminate MassMutual Lifetime Income Protector.

Domestic partners and civil union partners are not recognized as spouses for purposes of federal tax law. Therefore, when the contract is continued by a domestic partner or civil union partner, adverse tax consequences may result from both continuing the contract and continuing MassMutual Lifetime Income Protector.

If you elect MassMutual Lifetime Income Protector, we limit the investment choices available to you for the life of the contract.

The restriction in the amount and type of investment choices that are available to you under MassMutual Lifetime Income Protector is intended to help us manage the risk that we will be required to make payments to you under the MassMutual Lifetime Income Protector.

Excess withdrawals will reduce and may eliminate the value of the guarantees provided by this feature.

Additional purchase payments after the second contract year will not increase the value of the guarantees provided by this feature.

Election of this feature does not in any way guarantee performance of any of the investment choices available under the contract.

Before electing MassMutual Lifetime Income Protector consult with a qualified financial professional to discuss this feature and all other aspects of the contract.

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 2019, 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:

i) $56,000; or

ii) 25% of compensation (a maximum of $280,000 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.

SIMPLE IRAs

IRC Section 408(p) permits certain small employers to establish a Savings Incentive Match Plan for Employees (SIMPLE) IRA. SIMPLE IRA plans permit employees to make elective contributions only through a qualified salary reduction agreement. Employers can make contributions to the plan through either matching contributions or non-elective contributions. An employee's annual elective salary reduction contributions are limited to the lesser of $13,000 or 100% of compensation, and an additional catch-up contribution is available for individuals age 50 and over, up to the lesser of $3,000 or total compensation less any other elective deferrals. Elective contributions made to a SIMPLE IRA are counted against the overall limit on elective deferrals by any individual (the lesser of $19,000 or 100% of compensation). The employer must make certain matching contributions or non-elective contributions to the employee's account. SIMPLE 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 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.

Corporate Pension and Profit-Sharing Plans

IRC Sections 401(a) and 401(k) permit employers to establish various types of retirement plans for employees. Contributions made to the plan for the benefit of the employees and the earnings on those contributions are generally not included in gross income of the employees until distributed from the plan. The tax consequences to participants may vary depending upon the particular plan design. In general, annual contributions made by an employer and employee to a defined contribution plan may not exceed the lesser of:

- i) $56,000; or
- ii) 100% of compensation or earned income (a maximum of $280,000 of compensation may be considered).

An employee's elective salary reduction contributions under a cash or deferred arrangement (i.e. a 401(k) plan) are limited to $19,000, with an additional catch-up contribution of up to $6,000 available for eligible participants age 50 or over. Defined benefit plans are limited to contributions necessary to fund a promised level of benefit. The annual benefit under a defined benefit plan is limited to:

- i) 100% of compensation for a participant's highest three years; or
- ii) $225,000.

Plans are subject to additional restrictions, including on such items 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.

H.R. 10 Plans

IRC Section 401(a) permits self-employed individuals to establish qualified plans for themselves and their employees, commonly referred to as "H.R.10" or "Keogh" plans. Contributions made to the plan for the benefit of the employees and the earnings on those contributions are generally not included in gross income of the employees until distributed from the plan. The tax consequences to participants may vary depending upon the particular plan design. In general, H.R. 10 Plans are subject to the same restrictions as corporate pension and profit-sharing plans (see "Taxes – Qualified Contracts – Corporate Pension and Profit-Sharing Plans"), including limitations on eligibility, participation, contributions, time and manner of distributions, transferability and taxation of distributions. See "Taxes – Taxation of Qualified Contracts." You should consult a tax adviser as to the tax treatment and suitability of such an investment.

Tax-Sheltered Annuities

IRC Section 403(b) permits certain eligible employers to purchase annuity contracts, known as Tax-Sheltered Annuities (TSAs), under a section 403(b) program. Eligible employers are organizations that are exempt from tax under IRC Section 501(c)(3) and public educational organizations. Contributions made to a TSA and the earnings on those contributions are generally not included in gross income of the employee until distributed from the plan. TSAs are subject to limitations on contributions, which may be made as "elective deferrals" (contributions made pursuant to a salary reduction agreement) or as non-elective or matching contributions by an employer. In general, annual contributions made by an employer and employee to a TSA may not exceed the lesser of:

- i) $56,000; or
- ii) 100% of includible compensation (a maximum of $280,000 of includible compensation may be considered).

An employee's elective salary reduction contributions are limited to $19,000. In addition, certain catch-up contributions may be made by eligible participants age 50 or over and those with 15 or more years of service with the same employer. TSAs are subject to additional restrictions, including on such items 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 – Tax-Sheltered Annuities Taxation and Withdrawal Restrictions." 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:

1) allocable to investment in the contract made after August 13, 1982 in an annuity contract entered into prior to August 14, 1982; or
2) 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). With respect to SIMPLE IRAs, the 10% penalty is increased to 25% if the distribution occurs within the first two years after the commencement of the employee's participation in the plan. 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; and

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

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:

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

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

iii) a rollover by the individual 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.

Tax-Sheltered Annuities Taxation and Withdrawal Restrictions. Under IRS regulations, effective January 1, 2009, all TSA plans must have a written plan document which specifies the requirements that each contract must meet in order to be qualified under the plan. In addition, the document must provide a list of the providers and contracts that are permitted to be purchased by TSA plan participants under the plan. TSA plan participants should be aware that if a TSA plan removes the provider or specific contract type that the TSA plan participant owns from its approved list, the TSA plan participant may be restricted from making further salary reduction contributions into that contract. TSA plans also have the right to restrict the ability to take loans and hardship withdrawals from a TSA contract. Because a plan participant may own more than one TSA contract, before we process a transaction we may require the TSA plan to approve the transaction to ensure that rules regarding loans, hardships and distribution restrictions are met. TSA plan participants should contact their individual TSA plan to determine the specific rules that apply to them.

The IRS regulations also make significant changes to Revenue Ruling 90-24 exchanges or transfers. Under the regulations an exchange may only be done when the TSA plan allows TSA exchanges under its plan and the provider of the new TSA contract agrees to share information with the TSA plan to ensure that the requirements of the TSA plan are met. Given this restriction, before a TSA exchange is processed, the TSA plan is required to approve the transaction or provide a list of vendors for which it has an information sharing agreement (ISA). Additionally, because most of the regulations were not effective until 2009, there was great uncertainty about their application to contract exchanges that took place between September 24, 2007 and January 1, 2009. Because of this uncertainty, it is possible that an exchange that took place prior to January 1, 2009 caused a TSA plan participant to incur taxation on the value of the contract. However, it is also possible that such an exchange did not have adverse tax consequences. If a TSA plan participant exchanged a contract to a TSA contract with a provider that does not have an ISA with the TSA plan, the participant had until July 1, 2009 to avoid adverse tax consequences by exchanging the contract for a TSA contract with which the TSA plan does have an ISA.

The IRC limits the withdrawal of purchase payments made by TSA plan participants through salary reductions from certain TSAs. Withdrawals of salary reduction amounts and their earnings can be made when a TSA plan participant:

1) reaches age 59½;

2) has a severance from employment;

3) dies;

4) becomes disabled, as that term is defined in the IRC; or

5) the TSA plan terminates (starting January 1, 2009).

In the case of hardship, the TSA plan participant can only withdraw the purchase payments and not any earnings. The TSA plan participant is required to suspend salary reduction contributions to any other TSA contract for a six-month period following the date of hardship distribution.

TSA contract value as of December 31, 1988 and contract amounts attributable to service with a former employer are not subject to these restrictions. Additionally, return of excess contributions or amounts paid to a spouse as a result of a qualified domestic relations order are not subject to these restrictions.

TSA contracts issued January 1, 2009 and after are subject to distribution restrictions on employer contributions. These restrictions are determined by the TSA plan and can be based on criteria such as completing years of service or attaining a stated age.

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:

a) the calendar year in which you attain age 70½; or

b) the calendar year in which you retire.

The date set forth in (b) 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 has not entered the income phase and your 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 or over the life or life expectancy of the designated beneficiary. If your contract has not entered the income phase and your death occurs before your required beginning date, the remaining interest must be distributed within five years or over the life or life expectancy of the designated beneficiary. 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. 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. Any remaining interest must be distributed within five years or over your beneficiary's life expectancy. If required minimum distributions are not made, a 50% penalty tax is imposed on the amount that should have been distributed.

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:

i) if distributed in a lump sum, they are taxed in the same manner as a full withdrawal of the contract; or

ii) 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) a series of substantially equal payments made at least annually for:

    i) the life or life expectancy of the owner, or joint and last survivor expectancy of the owner and a designated beneficiary; or

    ii) for a specified period of ten years or more;

b) distributions which are required minimum distributions; or

c) 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:

1) proof of residency (in accordance with IRS requirements); and
2) 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, the annual contract maintenance 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

In certain states, you cannot assign the contract without our approval. We will refuse or accept any request to assign the contract on a non-discriminatory basis. Please refer to your contract.

We must receive written notice of the assignment in good order for any assignment we allow to be binding on us. 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. We are not responsible for the validity of an assignment. You may be subject to tax consequences if you assign your contract.

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.

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 accounts 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:

1) the date of the last annuity payment if you have applied your entire contract value to an annuity option;
2) the date payment is made of the entire contract value unless there are payments remaining under one of the additional features;
3) the date of the last payment upon death to the last beneficiary; or
4) 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 Failures and Cybersecurity

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.

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 Select^{SM} (AN3503SAI).

Name ____

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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 Pre-2008 Version

(for contracts applied for prior to 9/8/2008 or in states where the 2008 Version was unavailable)

Sub-Account	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	Dec. 31, 2009	Value at Inception Date
Fidelity® VIP Contrafund®	$28.77	$31.09	$25.80	$24.16	$24.28	$21.94	$16.91	$14.69	$15.24	$13.16	$10.00(a)
Invesco V.I. Diversified Dividend	10.33	11.30	10.53	9.28	9.20	8.24	6.36	5.42	5.60	5.14	10.00(a)
Invesco V.I. Health Care	25.92	25.99	22.70	25.93	25.42	21.49	15.47	12.94	12.60	12.10	10.00(a)
Invesco V.I. Technology	28.54	29.00	21.71	22.13	20.96	19.09	15.43	14.03	14.94	12.46	10.00(a)
Ivy VIP Asset Strategy	11.59	12.40	10.60	11.01	12.15	12.97	10.49	—	—	—	10.00(b)
MML Aggressive Allocation	16.98	18.69	15.92	14.83	15.13	14.46	11.48	10.04	10.35	9.02	10.00(c)
MML Asset Allocation (k)	—	—	—	—	—	—	—	11.61	11.55	10.37	10.00(a)
MML Balanced Allocation	15.06	15.95	14.47	13.79	14.00	13.44	11.88	10.69	10.63	9.54	10.00(c)
MML Blend	22.78	24.09	21.14	19.55	19.76	18.01	15.14	13.60	13.12	11.80	10.00(a)
MML Blue Chip Growth	34.50	34.26	25.44	25.50	23.22	21.52	15.40	13.17	13.14	11.44	10.00(a)
MML China (d)	—	—	—	—	—	14.97	13.61	10.99	13.75	13.32	10.00(e)
MML Concentrated Growth (k)	—	—	—	—	—	—	—	9.75	9.93	8.80	10.00(a)
MML Conservative Allocation	14.82	15.54	14.34	13.71	13.92	13.39	12.17	11.05	10.90	9.85	10.00(c)
MML Core Allocation *	16.01	17.02	14.98	13.90	14.22	13.31	11.38	10.31	10.45	9.68	10.00(e)
MML Emerging Growth (k)	—	—	—	—	—	—	—	11.41	12.35	9.97	10.00(a)
MML Enhanced Index Core Equity (k)	—	—	—	—	—	—	—	12.12	11.95	10.59	10.00(a)
MML Equity	20.31	22.82	19.94	17.91	18.76	17.01	12.91	11.26	11.83	10.43	10.00(a)
MML Equity Income	21.45	23.95	20.82	17.75	19.28	18.13	14.12	12.17	12.41	10.92	10.00(a)
MML Equity Index	24.98	26.54	22.13	20.08	20.11	17.97	13.79	12.08	12.01	10.61	10.00(a)
MML Focused Equity	19.51	19.54	16.26	13.97	15.55	14.05	10.33	—	—	—	10.00 (f)
MML Foreign	14.67	17.64	14.66	14.62	15.43	16.78	14.05	11.94	13.40	12.95	10.00(a)
MML Fundamental Growth	18.55	18.64	14.81	14.47	13.82	12.61	9.67	—	—	—	10.00 (f)
MML Fundamental Value	15.55	17.59	15.50	13.87	14.49	13.21	10.24	—	—	—	10.00 (f)
MML Global	18.43	20.61	16.79	15.79	16.19	15.76	12.44	10.17	10.75	9.65	10.00(a)
MML Growth *	22.58	22.99	18.20	16.89	16.05	15.04	11.74	10.12	10.74	9.20	10.00(e)
MML Growth & Income	20.80	22.19	18.15	16.87	16.99	15.45	11.80	9.99	10.29	9.34	10.00(a)
MML Growth Allocation	16.25	17.65	15.39	14.47	14.74	14.10	11.63	10.27	10.44	9.19	10.00(c)
MML High Yield	15.85	16.62	15.59	13.56	13.91	13.97	12.78	11.09	10.61	—	10.00(g)

Sub-Account	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	Dec. 31, 2009	Value at Inception Date
MML Income & Growth	$19.43	$22.25	$19.17	$16.66	$16.87	$15.62	$12.68	$11.46	$10.97	$ 9.94	$10.00(a)
MML Inflation-Protected and Income	13.11	13.44	13.17	12.66	13.00	12.72	14.09	13.33	11.88	11.28	10.00(a)
MML International *	12.99	15.19	11.67	11.47	12.20	12.74	10.64	9.17	10.83	10.26	10.00(e)
MML International Equity	8.85	11.79	9.16	8.58	9.15	—	—	—	—	—	10.00(h)
MML Large Cap Growth	24.93	25.80	19.55	19.85	19.10	17.64	13.37	11.68	12.26	10.44	10.00(a)
MML Managed Bond	15.04	15.28	14.76	14.53	14.81	14.07	14.47	13.84	13.05	12.34	10.00(a)
MML Managed Volatility	16.25	17.25	16.00	15.61	15.33	14.85	12.75	11.40	12.00	10.80	10.00(a)
MML Mid Cap Growth	27.33	28.26	22.90	21.80	20.65	18.44	13.65	12.13	12.43	9.81	10.00 (i)
MML Mid Cap Value	27.82	32.34	29.29	24.04	24.68	21.40	16.60	14.39	14.65	12.34	10.00(a)
MML Moderate Allocation	15.64	16.74	14.94	14.14	14.40	13.79	11.87	10.61	10.62	9.47	10.00(c)
MML NASDAQ-100® (k)	—	—	—	—	—	—	—	15.89	15.58	13.17	10.00(a)
MML Short-Duration Bond	10.77	10.76	10.64	10.49	10.54	10.55	10.59	10.42	10.21	—	10.00(g)
MML Small Cap Equity	24.54	27.65	24.45	20.92	22.43	20.23	14.51	12.40	12.82	10.51	10.00(a)
MML Small Cap Growth Equity	30.59	32.53	26.79	24.04	25.62	24.48	16.67	14.87	15.87	13.13	10.00(a)
MML Small Cap Index (k)	—	—	—	—	—	—	—	14.66	14.74	11.87	10.00(a)
MML Small Company Value	25.22	29.39	26.68	20.42	21.89	22.09	17.01	14.97	15.38	12.90	10.00 (j)
MML Small/Mid Cap Value	22.85	27.18	24.23	19.59	20.98	19.39	14.20	12.06	13.19	10.52	10.00(a)
MML Strategic Emerging Markets	10.84	12.55	9.49	9.04	10.68	11.45	12.42	10.84	14.14	12.25	10.00(e)
MML Total Return Bond	10.44	10.60	10.43	10.32	10.44	10.11	10.42	—	—	—	10.00 (f)
MML U.S. Government Money Market	9.15	9.14	9.21	9.30	9.41	9.52	9.63	9.74	9.86	9.97	10.00(c)
Oppenheimer Capital Appreciation	21.56	23.14	18.45	19.09	18.65	16.34	12.74	11.30	11.56	10.69	10.00(a)
Oppenheimer Conservative Balanced (l)	13.37	14.28	13.22	12.71	12.75	11.92	10.65	9.59	9.64	8.63	10.00(a)
Oppenheimer Discovery Mid Cap Growth	24.20	26.07	20.47	20.24	19.20	18.36	13.66	11.87	11.87	9.42	10.00(a)
Oppenheimer Global	26.03	30.33	22.45	22.69	22.08	21.84	17.35	14.47	15.97	13.93	10.00(a)
Oppenheimer Global Multi-Alternatives (p)	9.14	9.56	9.65	9.43	9.93	—	—	—	—	—	10.00(h)
Oppenheimer Global Strategic Income	15.91	16.83	16.02	15.21	15.74	15.49	15.69	13.98	14.02	12.33	10.00(a)
Oppenheimer Government Money (n)	10.10	10.08	10.16	10.27	10.39	10.51	10.63	10.75	10.87	11.00	10.00(a)
Oppenheimer High Income (l), (m)	—	—	—	—	—	—	—	3.26	3.37	2.97	10.00(a)
Oppenheimer International Growth	22.02	27.64	22.14	22.88	22.37	24.39	19.60	16.23	17.68	15.58	10.00(a)
Oppenheimer Main Street	23.41	25.71	22.24	20.16	19.74	18.03	13.84	11.98	12.12	10.56	10.00(a)
PIMCO CommodityRealReturn® Strategy	5.03	5.93	5.88	5.18	7.05	8.76	10.39	10.00	10.94	8.91	10.00 (i)
VY® Clarion Global Real Estate	13.87	15.37	14.07	14.15	14.49	12.88	12.56	10.11	10.80	9.42	10.00 (i)

Accumulation Units Outstanding Pre-2008 Version

(for contracts applied for prior to 9/8/2008 or in states where the 2008 Version was unavailable)

Sub-Account	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	Dec. 31, 2009
Fidelity® VIP Contrafund® (a)	3,616,917	4,339,498	5,122,009	5,772,735	6,652,377	8,138,892	9,793,730	10,919,548	11,562,511	12,595,080
Invesco V.I. Diversified Dividend (a)	98,780	127,959	168,252	169,581	164,517	184,223	215,279	179,311	200,659	227,467
Invesco V.I. Health Care (a)	63,183	77,884	111,271	150,864	133,271	129,668	112,498	101,564	105,504	109,957
Invesco V.I. Technology (a)	42,724	55,957	49,705	67,008	73,574	83,270	100,453	98,922	109,045	124,337
Ivy VIP Asset Strategy (b)	8,982	9,453	14,228	30,400	32,437	34,281	510	—	—	—
MML Aggressive Allocation (c)	1,061,326	1,316,254	1,450,184	1,593,101	1,821,351	1,960,178	2,104,951	2,278,432	2,369,254	2,480,975
MML Asset Allocation (a), (k)	—	—	—	—	—	—	—	1,525,071	1,693,223	1,798,982
MML Balanced Allocation (c)	3,096,457	3,534,017	4,222,653	5,101,862	6,096,224	6,235,350	6,626,641	6,704,012	7,003,736	7,317,130
MML Blend (a)	492,372	577,316	643,139	662,135	690,043	856,118	760,268	462,286	446,689	437,402
MML Blue Chip Growth (a)	327,753	389,694	444,141	488,836	543,940	615,538	712,435	641,532	673,563	754,728
MML China (d), (e)	—	—	—	—	—	38,655	43,287	53,148	58,377	65,452
MML Concentrated Growth (a), (k)	—	—	—	—	—	—	—	352,473	383,731	424,244
MML Conservative Allocation (c)	3,183,456	3,634,423	4,155,835	4,509,453	5,261,092	5,934,695	6,550,100	6,311,911	5,788,158	5,619,414
MML Core Allocation (e), *	1,266,256	1,351,991	1,161,321	873,731	950,003	894,231	764,966	748,653	850,551	673,503
MML Emerging Growth (a), (k)	—	—	—	—	—	—	—	116,349	126,158	139,362
MML Enhanced Index Core Equity (a), (k)	—	—	—	—	—	—	—	96,689	97,927	104,024
MML Equity (a)	244,455	282,488	327,018	352,578	371,227	412,543	425,273	468,234	453,983	494,036
MML Equity Income (a)	3,966,967	4,640,492	5,479,942	6,476,615	7,053,671	8,414,561	10,021,249	11,469,576	12,061,168	12,867,602
MML Equity Index (a)	156,419	161,354	193,136	182,093	210,396	221,429	202,682	206,165	218,116	223,886
MML Focused Equity (f)	10,698	14,177	16,212	44,539	39,916	45,822	15,456	—	—	—
MML Foreign (a)	5,851,596	6,265,460	7,447,097	8,127,457	8,958,479	9,349,195	10,408,699	11,497,314	11,706,178	11,481,800
MML Fundamental Growth (f)	4,540	5,108	5,410	9,170	17,429	21,356	11,452	—	—	—
MML Fundamental Value (f)	9,138	18,977	23,408	57,000	23,832	15,190	—	—	—	—
MML Global (a)	73,899	89,893	97,063	114,885	127,995	128,115	133,880	133,001	134,945	139,655
MML Growth (e), *	177,062	202,074	211,936	247,361	267,073	292,980	322,568	339,624	295,111	240,068
MML Growth & Income (a)	523,679	602,026	680,940	742,449	885,159	1,072,191	1,240,631	1,472,468	1,639,204	1,777,923
MML Growth Allocation (c)	18,726,726	21,194,386	23,201,242	25,133,067	27,453,932	28,568,310	29,463,976	30,662,948	31,483,985	31,267,109
MML High Yield (g)	54,689	76,962	82,276	141,881	143,134	199,639	192,347	81,136	21,168	—
MML Income & Growth (a)	186,227	204,214	229,974	252,463	267,370	309,233	353,870	345,225	346,871	329,420
MML Inflation-Protected and Income (a)	6,809,148	8,227,088	8,495,201	9,787,336	11,224,733	13,171,251	12,208,825	12,139,571	14,888,778	14,687,583
MML International (e), *	156,743	163,325	171,522	220,819	190,915	196,361	188,529	235,257	227,417	159,960
MML International Equity (h)	5,703	6,839	517	19,985	686	—	—	—	—	—

Sub-Account	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	Dec. 31, 2009
MML Large Cap Growth (a)	72,790	93,261	108,661	112,990	122,742	138,859	163,801	193,838	203,285	226,830
MML Managed Bond (a)	4,133,948	5,000,551	5,357,798	6,005,013	6,944,219	8,306,131	8,636,961	8,518,942	9,744,460	9,726,806
MML Managed Volatility (a)	4,176,993	4,974,192	5,436,787	5,990,541	7,096,958	8,235,642	9,041,384	10,003,061	10,390,091	10,847,405
MML Mid Cap Growth (i)	491,040	587,344	686,755	764,541	859,141	1,026,936	1,182,724	1,305,188	1,343,663	1,433,417
MML Mid Cap Value (a)	2,700,224	3,034,868	3,518,928	4,291,577	4,860,484	6,254,667	7,550,367	8,673,081	9,168,851	10,233,296
MML Moderate Allocation (c)	11,733,278	13,314,609	14,823,845	16,150,148	18,583,427	19,705,796	20,410,829	21,137,069	22,513,521	22,033,586
MML NASDAQ-100® (a), (k)	—	—	—	—	—	—	—	91,320	83,161	78,489
MML Short-Duration Bond (g)	132,535	188,982	228,484	235,261	248,762	237,161	210,188	150,075	75,582	—
MML Small Cap Equity (a)	200,150	223,805	277,644	312,788	361,582	434,031	492,579	531,717	579,281	646,222
MML Small Cap Growth Equity (a)	1,992,582	2,447,881	2,976,657	3,495,587	3,824,344	4,527,017	6,089,754	6,797,317	6,870,016	7,791,591
MML Small Cap Index (a), (k)	—	—	—	—	—	—	—	291,855	299,753	332,177
MML Small Company Value (j)	27,964	26,740	33,916	33,170	41,440	52,886	52,633	27,575	17,069	6,092
MML Small/Mid Cap Value (a)	2,817,949	3,128,787	3,703,744	4,501,500	4,906,373	5,974,579	7,528,787	9,006,896	8,799,807	10,293,105
MML Strategic Emerging Markets (e)	82,919	91,423	97,719	104,706	104,775	117,704	123,822	143,276	152,942	104,222
MML Total Return Bond (f)	62,553	66,564	74,394	137,250	107,220	154,871	96,335	—	—	—
MML U.S. Government Money Market (c)	1,261,699	1,491,468	1,428,731	1,426,963	1,820,581	2,184,889	2,321,982	844,401	648,047	828,141
Oppenheimer Capital Appreciation (a)	4,077,110	5,000,811	5,934,115	6,363,919	7,568,217	9,672,992	11,697,710	12,934,696	13,814,413	14,195,172
Oppenheimer Conservative Balanced (a), (l)	75,660	85,598	103,614	118,935	139,335	169,147	222,326	303,218	337,578	451,753
Oppenheimer Discovery Mid Cap Growth (a)	2,642,556	3,251,325	3,821,733	4,346,203	5,298,243	6,276,861	7,845,448	8,603,116	9,593,132	11,330,921
Oppenheimer Global (a)	2,865,682	3,303,548	4,118,598	4,457,147	5,284,085	6,034,294	7,072,893	7,971,874	8,263,613	8,926,108
Oppenheimer Global Multi-Alternatives (h), (p)	2,637	3,864	6,518	4,384	3,941	—	—	—	—	—
Oppenheimer Global Strategic Income (a)	6,085,402	7,146,073	7,720,012	8,859,056	10,081,857	11,628,915	11,590,069	12,165,887	13,735,209	14,473,427
Oppenheimer Government Money (a), (n)	168,917	151,471	164,103	222,565	237,754	361,779	499,918	669,643	732,105	1,150,051
Oppenheimer High Income (a), (l), (m)	—	—	—	—	—	—	—	638,297	751,221	990,880
Oppenheimer International Growth (a)	497,352	543,746	618,561	708,345	826,707	883,695	961,214	1,150,118	1,235,236	1,297,161
Oppenheimer Main Street (a)	106,541	117,669	147,606	169,166	190,531	246,667	278,260	319,789	330,296	342,730
PIMCO CommodityRealReturn® Strategy (i)	300,157	337,236	399,495	435,601	476,374	524,236	518,826	565,726	603,889	625,411
VY® Clarion Global Real Estate (i)	134,303	155,417	205,401	238,123	253,340	297,993	285,449	321,004	340,882	356,596

Accumulation Unit Values 2008 Version

(for contracts applied for on or after 9/8/2008, subject to state availability)

Sub-Account	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	Dec. 31, 2009	Value at Inception Date
Fidelity® VIP Contrafund®	$28.03	$30.37	$25.27	$23.73	$23.90	$21.66	$16.73	$14.57	$15.16	$13.12	$14.04(e)
Invesco V.I. Diversified Dividend	10.09	11.07	10.34	9.13	9.07	8.15	6.31	5.39	5.58	5.12	7.75(e)
Invesco V.I. Health Care	25.26	25.40	22.23	25.46	25.03	21.21	15.31	12.84	12.52	12.06	12.64(e)
Invesco V.I. Technology	27.79	28.32	21.26	21.72	20.62	18.82	15.26	13.90	14.85	12.41	11.95(e)
Ivy VIP Asset Strategy	11.59	12.40	10.60	11.01	12.15	12.97	10.49	—	—	—	10.00(b)
MML Aggressive Allocation	16.52	18.26	15.59	14.57	14.89	14.26	11.35	9.95	10.28	8.97	9.63(e)
MML Asset Allocation (k)	—	—	—	—	—	—	—	11.52	11.48	10.33	11.48(e)
MML Balanced Allocation	14.68	15.59	14.18	13.56	13.80	13.28	11.76	10.61	10.57	9.51	9.77(e)
MML Blend	22.20	23.54	20.71	19.19	19.45	17.77	14.98	13.48	13.05	11.76	12.03(e)
MML Blue Chip Growth	33.62	33.45	24.90	25.02	22.85	21.23	15.23	13.06	13.07	11.41	12.10(e)
MML China (d)	—	—	—	—	—	14.97	13.61	10.99	13.75	13.32	10.00(e)
MML Concentrated Growth (k)	—	—	—	—	—	—	—	9.65	9.86	8.76	11.09(e)
MML Conservative Allocation	14.42	15.15	14.02	13.44	13.68	13.20	12.03	10.94	10.82	9.81	9.85(e)
MML Core Allocation *	16.01	17.02	14.98	13.90	14.22	13.31	11.38	10.31	10.45	9.68	10.00(e)
MML Emerging Growth (k)	—	—	—	—	—	—	—	11.32	12.28	9.94	13.06(e)
MML Enhanced Index Core Equity (k)	—	—	—	—	—	—	—	12.01	11.88	10.55	12.00(e)
MML Equity	19.79	22.30	19.53	17.59	18.47	16.79	12.78	11.16	11.76	10.39	11.80(e)
MML Equity Income	20.91	23.40	20.41	17.43	18.98	17.90	13.98	12.08	12.34	10.88	12.34(e)
MML Equity Index	24.34	25.93	21.66	19.71	19.80	17.73	13.64	11.98	11.94	10.58	11.89(e)
MML Focused Equity	19.51	19.54	16.26	13.97	15.55	14.05	10.33	—	—	—	10.00 (f)
MML Foreign	14.31	17.24	14.36	14.36	15.21	16.55	13.91	11.85	13.33	12.90	13.67(e)
MML Fundamental Growth	18.55	18.64	14.81	14.47	13.82	12.61	9.67	—	—	—	10.00 (f)
MML Fundamental Value	15.55	17.59	15.50	13.87	14.49	13.21	10.24	—	—	—	10.00 (f)
MML Global	18.04	20.24	16.52	15.56	16.00	15.63	12.36	10.13	10.74	9.66	10.84(e)
MML Growth *	22.58	22.99	18.20	16.89	16.05	15.04	11.74	10.12	10.74	9.20	10.00(e)
MML Growth & Income	20.25	21.67	17.76	16.56	16.72	15.25	11.67	9.89	10.22	9.30	10.45(e)
MML Growth Allocation	15.84	17.25	15.07	14.22	14.52	13.92	11.51	10.19	10.38	9.16	9.68(e)
MML High Yield	15.85	16.62	15.59	13.56	13.91	13.97	12.78	11.09	10.61	—	10.00(g)
MML Income & Growth	18.94	21.76	18.78	16.36	16.61	15.42	12.56	11.37	10.91	9.90	11.46(e)
MML Inflation-Protected and Income	12.77	13.12	12.89	12.43	12.79	12.54	13.93	13.21	11.81	11.24	11.20(e)
MML International *	12.99	15.19	11.67	11.47	12.20	12.74	10.64	9.17	10.83	10.26	10.00(e)
MML International Equity	8.85	11.79	9.16	8.58	9.15	—	—	—	—	—	10.00(h)
MML Large Cap Growth	24.27	25.17	19.14	19.46	18.79	17.40	13.21	11.58	12.18	10.40	11.11(e)
MML Managed Bond	14.66	14.93	14.46	14.27	14.58	13.89	14.32	13.73	12.97	12.30	11.40(e)

Sub-Account	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	Dec. 31, 2009	Value at Inception Date
MML Managed Volatility	$15.84	$16.86	$15.68	$15.33	$15.09	$14.66	$12.62	$11.31	$11.93	$10.77	$12.12(e)
MML Mid Cap Growth	26.62	27.61	22.44	21.41	20.32	18.20	13.50	12.03	12.36	9.78	10.13(e)
MML Mid Cap Value	27.09	31.62	28.69	23.62	24.28	21.12	16.42	14.27	14.55	12.31	12.69(e)
MML Moderate Allocation	15.25	16.36	14.64	13.90	14.18	13.61	11.73	10.52	10.56	9.44	9.75(e)
MML NASDAQ-100® (k)	—	—	—	—	—	—	—	15.75	15.49	13.13	12.62(e)
MML Short-Duration Bond	10.77	10.76	10.64	10.49	10.54	10.55	10.59	10.42	10.21	—	10.00(g)
MML Small Cap Equity	23.88	26.96	23.91	20.51	22.04	19.93	14.33	12.27	12.72	10.46	11.74(e)
MML Small Cap Growth Equity	29.81	31.78	26.24	23.60	25.22	24.15	16.49	14.75	15.78	13.09	13.72(e)
MML Small Cap Index (k)	—	—	—	—	—	—	—	14.53	14.66	11.83	13.77(e)
MML Small Company Value	25.22	29.39	26.68	20.42	21.89	22.09	17.01	14.97	15.38	12.90	10.00 (j)
MML Small/Mid Cap Value	22.28	26.55	23.75	19.24	20.65	19.14	14.05	11.96	13.11	10.49	11.45(e)
MML Strategic Emerging Markets	10.84	12.55	9.49	9.04	10.68	11.45	12.42	10.84	14.14	12.25	10.00(e)
MML Total Return Bond	10.44	10.60	10.43	10.32	10.44	10.11	10.42	—	—	—	10.00 (f)
MML U.S. Government Money Market	9.15	9.14	9.21	9.30	9.41	9.52	9.63	9.74	9.86	9.97	10.00(c)
Oppenheimer Capital Appreciation	21.01	22.60	18.07	18.74	18.35	16.13	12.60	11.20	11.49	10.65	11.60(e)
Oppenheimer Conservative Balanced (o)	13.03	13.95	12.95	12.48	12.55	11.76	10.54	9.51	9.58	8.60	11.39(e)
Oppenheimer Discovery Mid Cap Growth	23.58	25.46	20.05	19.87	18.90	18.11	13.51	11.77	11.80	9.39	11.93(e)
Oppenheimer Global	25.37	29.63	21.99	22.28	21.74	21.55	17.16	14.35	15.87	13.88	14.13(e)
Oppenheimer Global Multi-Alternatives (p)	9.14	9.56	9.65	9.43	9.93	—	—	—	—	—	10.00(h)
Oppenheimer Global Strategic Income	15.49	16.42	15.66	14.91	15.46	15.26	15.50	13.85	13.92	12.27	12.30(e)
Oppenheimer High Income (m), (o)	—	—	—	—	—	—	—	3.28	3.40	3.01	10.08(e)
Oppenheimer International Growth	21.49	27.03	21.62	22.48	22.06	24.03	19.34	16.08	17.60	15.53	16.06(e)
Oppenheimer Main Street	22.82	25.12	21.78	19.80	19.42	17.80	13.70	11.88	12.06	10.53	11.62(e)
PIMCO CommodityRealReturn® Strategy	5.03	5.93	5.88	5.18	7.05	8.76	10.39	10.00	10.94	8.91	10.00 (i)
VY® Clarion Global Real Estate	13.87	15.37	14.07	14.15	14.49	12.88	12.56	10.11	10.80	9.42	10.00 (i)

Accumulation Units Outstanding 2008 Version

(for contracts applied for on or after 9/8/2008, subject to state availability)

Sub-Account	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	Dec. 31, 2009
Fidelity® VIP Contrafund® (e)	2,657,861	2,891,933	2,943,283	3,045,552	2,708,997	2,388,676	2,086,153	1,839,022	1,491,105	1,081,581
Invesco V.I. Diversified Dividend (e)	1,052,918	1,043,897	1,021,938	794,008	840,950	620,245	281,599	204,136	175,052	124,951
Invesco V.I. Health Care (e)	349,010	405,412	441,872	507,887	300,395	216,792	110,563	90,633	74,519	52,435
Invesco V.I. Technology (e)	249,276	240,697	236,280	262,995	153,300	103,688	80,392	54,281	36,660	21,385
Ivy VIP Asset Strategy (b)	408,948	431,591	484,146	600,866	418,158	193,311	4,138	—	—	—
MML Aggressive Allocation (e)	3,424,405	3,572,177	3,572,449	3,734,698	3,369,070	2,826,413	2,383,072	2,147,276	1,694,824	1,364,001
MML Asset Allocation (e), (k)	—	—	—	—	—	—	—	444,117	418,731	297,395
MML Balanced Allocation (e)	17,210,989	20,017,538	22,109,410	23,313,747	22,919,422	21,860,396	19,496,687	17,228,514	15,412,801	11,712,795
MML Blend (e)	1,423,218	1,465,389	1,449,469	1,400,421	1,063,029	832,093	723,702	460,781	405,255	282,938
MML Blue Chip Growth (e)	1,084,623	1,128,376	1,112,029	1,089,349	875,823	653,300	578,686	435,423	376,011	293,609
MML China (d), (e)	—	—	—	—	—	120,648	114,877	116,894	88,567	42,549
MML Concentrated Growth (e), (k)	—	—	—	—	—	—	—	139,873	123,306	89,099
MML Conservative Allocation (e)	13,158,802	15,553,707	17,125,152	17,305,983	16,790,346	16,571,745	16,628,600	14,559,385	11,830,839	9,961,880
MML Core Allocation (e), *	38,554,675	41,711,705	42,577,938	41,370,826	33,969,348	28,531,284	25,507,789	23,645,355	20,997,303	15,402,150
MML Emerging Growth (e), (k)	—	—	—	—	—	—	—	71,767	57,148	34,259
MML Enhanced Index Core Equity (e), (k)	—	—	—	—	—	—	—	33,995	21,436	14,919
MML Equity (e)	2,586,564	2,681,318	2,877,412	2,865,694	2,194,722	1,782,033	1,446,283	1,217,291	709,353	368,388
MML Equity Income (e)	2,282,810	2,473,021	2,673,308	2,790,829	2,481,795	2,189,077	1,991,589	1,830,845	1,469,278	1,007,398
MML Equity Index (e)	1,407,739	1,555,920	1,577,342	1,548,471	1,266,043	944,771	562,334	411,672	212,535	70,004
MML Focused Equity (f)	209,943	227,091	221,442	238,030	184,529	102,887	13,213	—	—	—
MML Foreign (e)	394,226	434,455	481,816	510,378	490,542	340,148	324,008	296,198	290,085	231,155
MML Fundamental Growth (f)	137,230	148,061	150,486	119,801	72,999	28,303	7,870	—	—	—
MML Fundamental Value (f)	228,332	238,303	234,006	236,762	130,980	61,902	11,161	—	—	—
MML Global (e)	411,278	461,135	479,501	473,179	400,038	282,825	197,521	148,850	93,548	40,515
MML Growth (e), *	3,990,117	4,631,901	5,073,541	5,214,306	4,678,665	4,104,008	3,629,019	3,049,437	2,142,734	1,294,747
MML Growth & Income (e)	591,890	704,695	793,463	806,763	799,589	789,963	703,468	670,045	969,757	918,985
MML Growth Allocation (e)	45,206,079	50,388,962	54,035,053	58,152,892	58,714,770	58,846,846	58,183,594	58,796,968	58,313,004	47,295,597
MML High Yield (g)	721,331	781,774	743,808	718,707	610,568	457,582	299,845	149,195	47,481	—
MML Income & Growth (e)	505,721	616,374	632,598	659,041	642,296	635,603	576,115	510,346	217,565	157,425
MML Inflation-Protected and Income (e)	1,871,261	2,187,360	2,331,059	2,482,252	2,588,633	2,608,859	2,615,097	2,026,275	1,834,617	1,277,613
MML International (e), *	2,573,629	2,746,496	2,940,865	3,128,787	2,730,008	2,362,901	2,217,937	2,051,569	1,676,677	1,076,252
MML International Equity (h)	74,117	68,440	35,833	53,332	13,339	—	—	—	—	—

Sub-Account	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	Dec. 31, 2009
MML Large Cap Growth (e)	94,746	112,121	95,005	95,843	79,591	69,594	72,907	66,554	39,461	36,600
MML Managed Bond (e)	11,897,097	13,020,779	12,818,282	12,799,567	10,771,208	8,926,829	6,524,276	4,640,453	3,171,695	1,568,375
MML Managed Volatility (e)	1,228,458	1,395,919	1,450,674	1,482,035	1,481,842	1,340,902	1,230,290	1,117,089	918,966	607,214
MML Mid Cap Growth (e)	1,800,064	2,005,208	2,100,464	2,151,434	1,879,999	1,642,300	1,432,867	1,280,243	954,117	630,011
MML Mid Cap Value (e)	866,618	926,019	974,387	967,559	861,105	789,975	728,086	653,333	465,907	348,185
MML Moderate Allocation (e)	81,214,828	93,223,910	101,904,110	107,936,630	97,643,862	83,476,554	68,907,992	56,083,674	44,131,994	30,792,202
MML NASDAQ-100® (e), (k)	—	—	—	—	—	—	—	89,737	57,621	37,641
MML Short-Duration Bond (g)	796,464	912,116	823,082	596,611	508,324	391,639	361,608	188,063	92,178	—
MML Small Cap Equity (e)	319,653	335,450	346,986	357,582	282,778	227,954	187,544	133,931	115,043	93,679
MML Small Cap Growth Equity (e)	312,306	329,662	361,940	367,992	291,207	252,385	273,420	271,467	220,515	149,850
MML Small Cap Index (e), (k)	—	—	—	—	—	—	—	234,657	206,616	158,829
MML Small Company Value (j)	268,048	306,490	300,420	305,217	271,131	236,223	193,999	136,527	86,626	27,177
MML Small/Mid Cap Value (e)	495,898	537,910	547,352	571,275	527,016	485,314	456,073	434,367	365,827	259,975
MML Strategic Emerging Markets (e)	474,170	530,899	520,699	480,449	443,757	384,426	303,117	258,608	196,092	82,806
MML Total Return Bond (f)	697,399	734,225	753,165	676,306	514,232	353,523	133,002	—	—	—
MML U.S. Government Money Market (c)	1,716,232	1,580,211	1,869,510	2,025,268	1,453,362	1,451,071	1,286,478	679,373	309,709	288,102
Oppenheimer Capital Appreciation (e)	371,012	422,011	447,257	417,168	334,759	300,167	271,756	230,472	218,078	142,814
Oppenheimer Conservative Balanced (e), (o)	3,197	3,408	4,340	6,793	7,899	7,950	8,268	12,384	16,065	36,386
Oppenheimer Discovery Mid Cap Growth (e)	210,020	253,369	245,833	273,892	250,973	238,247	215,050	156,242	109,303	59,505
Oppenheimer Global (e)	1,295,959	1,423,407	1,527,316	1,524,765	1,320,267	1,107,545	956,146	835,402	588,179	364,976
Oppenheimer Global Multi-Alternatives (h), (p)	83,219	94,012	80,695	72,116	50,333	—	—	—	—	—
Oppenheimer Global Strategic Income (e)	2,766,706	2,949,750	2,940,801	3,173,899	3,176,203	2,995,492	2,567,098	2,430,929	2,239,213	1,581,137
Oppenheimer High Income (e), (m), (o)	—	—	—	—	—	—	—	3,551	3,565	106,883
Oppenheimer International Growth (e)	685,000	718,108	728,367	778,990	761,651	643,102	569,093	549,985	457,341	326,886
Oppenheimer Main Street (e)	271,277	296,276	296,498	249,550	188,119	152,425	126,535	79,022	57,089	36,459
PIMCO CommodityRealReturn® Strategy (i)	758,924	848,690	867,757	831,157	774,631	638,101	519,266	420,462	318,473	259,404
VY® Clarion Global Real Estate (i)	488,359	543,633	550,306	598,138	567,032	490,234	442,289	331,044	277,935	169,619

Notes to Condensed Financial Information

a) *Commencement of public offering was August 9, 2004.*

b) *Commencement of public offering was October 31, 2012.*

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

d) *Effective April 28, 2014, MML China merged into MML Foreign.*

e) *Commencement of public offering was September 8, 2008.*

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

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

h) *Commencement of public offering was May 1, 2014.*

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

j) *Commencement of public offering was May 1, 2009.*

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

l) *Unavailable in Pre-2008 Version contracts issued on or after May 1, 2009. For Pre-2008 Version contracts issued prior to May 1, 2009, you may not allocate any new money to this sub-account via purchase payments or transfers.*

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

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

o) *Unavailable in 2008 Version contracts issued on or after May 1, 2009. For 2008 Version contracts issued prior to May 1, 2009, you may not allocate any new money to this sub-account via purchase payments or transfers.*

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

* *Individual Sub-Account Footnotes:*

MML Core Allocation sub-account invests in MML American Funds Core Allocation Fund.

MML Growth sub-account invests in MML American Funds® Growth Fund.

MML International sub-account invests in MML American Funds® International Fund.

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.

Appendix C – Additional Features

Guaranteed Minimum Income Benefit (GMIB)

We no longer sell contracts offering the GMIB. If you applied for your contract before April 1, 2009 and you elected a GMIB feature, see the chart below to identify which GMIB feature(s) were available to you when we issued your contract.

GMIB 5	The GMIB 5 is no longer available. GMIB 5 was available if you applied for your contract from 9/1/2007 to 3/31/2009 (subject to state availability). Certain aspects of the GMIB 5 vary depending on when we issued your contract. See "GMIB 5 and GMIB 6 – 2008 and Pre-2008 Version."
GMIB 6	The GMIB 6 is no longer available. GMIB 6 was available if you applied for your contract from 9/1/2007 to 12/2/2008 (subject to state availability). Certain aspects of the GMIB 6 vary depending on when we issued your contract. See "GMIB 5 and GMIB 6 – 2008 and Pre-2008 Version."
Basic GMIB	The Basic GMIB is no longer available. The Basic GMIB was available if you applied for your contract prior to 9/1/2007 (subject to state availability) or after 9/1/2007 in a state where GMIB 5 and GMIB 6 were unavailable.

Important GMIB Considerations

- Withdrawals reduce the value of the GMIB. To understand the impact of withdrawals on the GMIB value see the following sections in this appendix: "GMIB 5 and GMIB 6 – Adjustment for Withdrawals" or "Basic GMIB – How is the GMIB Value Calculated?"
- This feature may not be appropriate for all contract owners. You should understand the GMIB completely before you elect this feature.
- The GMIB does not in any way guarantee the performance of any of the investment choices available under this contract.
- For the GMIB 5 and GMIB 6, any purchase payments made after the second contract year will not increase the GMIB value, unless the GMIB value is reset.
- For the Basic GMIB any purchase payments made after the second contract year will not increase the GMIB value.
- Because the charge for the GMIB 5 and GMIB 6 is a percentage of the GMIB value, an increase in the GMIB value will result in an increase in the cost of the feature.
- 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.

GMIB 5 and GMIB 6
(MassMutual Guaranteed Income Plus 5 and MassMutual Guaranteed Income Plus 6)

See sub-section "Cost of GMIB 5 and GMIB 6" for detail about charges for this feature.

The GMIB 5 and GMIB 6 are no longer available. GMIB 5 was available if you applied for your contract from September 1, 2007 to March 31, 2009 (subject to state availability). GMIB 6 was available if you applied for your contract from September 1, 2007 to December 2, 2008 (subject to state availability). Certain aspects of the GMIB 5 and GMIB 6 vary depending on when we issued your contract. See "GMIB 5 and GMIB 6 – 2008 and Pre-2008 Version."

What are GMIB 5 and GMIB 6? GMIB 5 and GMIB 6 are features you may have elected when we issued your contract. Each sets a minimum floor for a future amount that you may apply to an annuity option. We call that amount the GMIB value.

Examples. For examples of how the benefit may work see "Appendix F – MassMutual Guaranteed Income Plus 5 Examples – 2008 Version."

2008 and Pre-2008 Versions. This prospectus describes two versions of the Transitions Select contract: the 2008 Version (applied for on or after 9/8/2008, subject to state availability); and the Pre-2008 Version (applied for prior to 9/8/2008 or in states where the 2008 Version was unavailable). In this section we will note when there are differences between the 2008 Version of GMIB 5 and GMIB 6 and the Pre-2008 Version.

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."

Benefit Waiting Period. You are not eligible to apply your GMIB value to an annuity option until after your benefit waiting period. The benefit waiting period equals ten contract years, so you become eligible to apply your GMIB value to an annuity option:

- on your tenth contract anniversary; or
- if your GMIB value is reset, on the tenth contract anniversary following the most recent reset.

Your first contract anniversary is one year from the date we issued your contract.

For additional eligibility requirements see "GMIB 5 and GMIB 6 – Eligibility for the GMIB Value."

How is the GMIB Value Calculated? When we issue your contract, your GMIB value will equal your initial purchase payment increased by a compound annual interest rate of 5% for GMIB 5 or 6% for GMIB 6.

Additional purchase payments made within the first two contract years are added to the GMIB value, increased on a pro-rated basis from the date of receipt until the end of that contract year by an annual interest rate of 5% for GMIB 5 or 6% for GMIB 6. If you make a withdrawal, we reduce your GMIB value by an adjustment for withdrawals.

On each contract anniversary prior to the contract anniversary on which the GMIB value is fully annuitized, we will increase your GMIB value by an annual interest rate of 5% for GMIB 5 or 6% for GMIB 6 and continue to make any adjustment for withdrawals. If your GMIB value is reset, we recalculate your GMIB value as described in "GMIB 5 and GMIB 6 – What Happens On A Reset Date?" If your GMIB value is reset, then on that date we will use the new GMIB value when calculating the 5% or 6% increase. Contract anniversary values are that day's values as of the close of the NYSE.

Discontinuation of Crediting of Annual Interest to the GMIB Value

Crediting of the annual interest rate to the GMIB value for the GMIB 5 and GMIB 6 will only be discontinued:

- on the contract anniversary following the annuitant attaining age 90 (for the 2008 Version) or 85 (for the Pre-2008 Version);
- if the contract value is fully annuitized;
- if the GMIB value is fully annuitized;
- if the GMIB 5 or GMIB 6 is terminated; or
- if the contract is terminated.

(The term "fully annuitized" means "fully applied to an annuity option.")

Adjustment for Withdrawals. If you make a withdrawal, we recalculate the GMIB value by making an adjustment for withdrawals. There are two types of adjustments for withdrawals:

Dollar For Dollar Adjustment

During each contract year, we will lower your GMIB value for each dollar that you withdraw up to and equal to the current contract year interest credited on your GMIB value.

Pro-Rata Adjustment

During each contract year, for any amount you withdraw that exceeds the current contract year interest credited on your GMIB value, the GMIB value will be further reduced by a pro-rata adjustment. Such a withdrawal will negatively impact your GMIB value. We use the percentage of contract value withdrawn to lower the GMIB value by the same percentage. This may result in a larger reduction in the GMIB value than the actual dollar amount of the withdrawal.

The following is an example of a pro-rata adjustment to the GMIB value:

The values shown are based on the following assumptions:

- the owner is age 60 when we issue the contract;
- the annuitant and the owner are the same person;
- the initial purchase payment is equal to $100,000; and
- there is a hypothetical rate of return such that the contract value in contract year 5 prior to the withdrawal is equal to $127,322

Contract Year (end of year)	Age	Purchase Payment	Withdrawal	Contract Value	GMIB Value	Monthly Income Benefit
1	61	$100,000	$ 0	$104,916	$105,000	$0
2	62		0	110,074	110,250	0
3	63		0	115,485	115,763	0
4	64		0	121,161	121,551	0
5	65		12,000	115,322	115,613	0
6	66		0	120,791	121,394	0

The example shows the following:

- On the contract issue date, the GMIB value is equal to the initial purchase payment increased by 5%.
- Each contract year the GMIB value is increased by 5%.
- A withdrawal of $12,000 is taken in contract year 5. Because this withdrawal is greater than the interest credited to the GMIB value during the current contract year, the GMIB value is:
  1) reduced dollar for dollar up to the interest credited during the current contract year; and
  2) reduced in direct proportion to the contract value reduction for the amount of the withdrawal greater than the GMIB interest credited during the current contract year.
- The GMIB interest credited during contract year 5 is equal to $6,077.
- The withdrawal amount is equal to $12,000.
- The excess withdrawal amount is equal to $5,923 ($12,000 – $6,077).
- The contract value prior to the excess withdrawal is equal to $121,245 ($127,322 – $6,077).
- The contract value after the excess withdrawal is equal to $115,322 ($121,245 – $5,923).
- The GMIB value prior to the withdrawal is equal to $127,628.
- The GMIB value prior to the excess withdrawal is equal to $121,551 ($127,628 – $6,077).
- The GMIB value after the excess withdrawal = the GMIB value prior to the excess withdrawal – ((excess withdrawal / contract value prior to the excess withdrawal) x (the GMIB value prior to the excess withdrawal)).
- The GMIB value = $121,551 – (($5,923 / $121,245) x ($121,551)) = $121,551 – $5,938 = $115,613.

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

Withdrawals may be subject to a contingent deferred sales charge.

The Reset Date for the 2008 Version

(for contracts applied for on or after 9/8/2008, subject to state availability). For the 2008 Version a reset date will automatically occur on your first contract anniversary and each subsequent contract anniversary, unless you request otherwise in writing. Your written request must be received in good order at our Service Center prior to the close of the NYSE on the business day before your contract anniversary for the request to be effective on that anniversary. Once the annuitant is over age 80 the reset option is no longer available so there are no longer reset dates.

The Reset Date for the Pre-2008 Version

(for contracts applied for prior to 9/8/2008 or in states where the 2008 Version was unavailable). For the Pre-2008 Version we will not schedule an initial reset date until you request one. Once you request an initial reset date we will automatically schedule future reset dates for each subsequent contract anniversary unless you request otherwise in writing. Reset dates may occur on your second contract anniversary and any subsequent contract anniversary. To request a reset or to cancel a reset a written request must be received in good order at our Service Center prior to the close of the NYSE on the business day before your contract anniversary for the request to be effective on that anniversary. Once the annuitant is over age 75 the reset option is no longer available so there are no longer reset dates.

What Happens on a Reset Date? As of the close of the NYSE on the business day prior to the reset date, we will compare your GMIB value to your contract value.

1) If at the close of the NYSE on the business day just prior to the reset date your contract value exceeds the GMIB value, then we will reset your GMIB value by increasing it to equal that contract value. The increase will occur on the reset date. Additionally, the following will occur:

   a) On the reset date you will begin a new ten year benefit waiting period.

   b) On the reset date we will use the new GMIB value to calculate the 5% or 6% increase.

   You may not apply the GMIB value to an annuity option until on or after the tenth contract anniversary following the most recent reset.

2) If at the close of the NYSE on the business day just prior to the reset date your contract value is less than the GMIB value, the following will occur:

   a) Your GMIB value will not be reset.

   b) The current benefit waiting period will remain in place.

Reset Examples

Example 1

Assuming:

- You elect GMIB 5.
- A reset is scheduled for your contract anniversary.
- On the close of the business day just prior to your contract anniversary your contract value is $120,000 and your GMIB value is $110,250.

Then:

- Since your contract value is higher than your GMIB value we reset your GMIB value to equal $120,000.
- Your benefit waiting period is extended to equal ten years from this contract anniversary.
- On this contract anniversary $6,000 is the interest credited on your GMIB value for the contract year ($120,000 x 5% for GMIB 5 = $6,000).
- During the contract year:

  a) you may withdraw up to $6,000 and we will make a dollar for dollar adjustment for withdrawals to your GMIB value;

  b) for any withdrawal amount that exceeds $6,000 during the contract year we will make a pro-rata adjustment for withdrawals to your GMIB value.

Example 2

Assuming:

- You elect GMIB 5.
- A reset is scheduled for your contract anniversary.
- On the close of the business day just prior to your contract anniversary your contract value is $90,000 and your GMIB value is $110,250.

Then:

- Since your contract value is less than your GMIB value we do not reset your GMIB value to equal your contract value. So your GMIB value remains at $110,250.
- Your benefit waiting period is unchanged.
- On this contract anniversary $5,513 is the interest credited on your GMIB value for the contract year ($110,250 x 5% for GMIB 5 = $5,513).
- During the contract year:

  a) you may withdraw up to $5,513 and we will make a dollar for dollar adjustment for withdrawals to your GMIB value;

  b) for any withdrawal amount that exceeds $5,513 during the contract year we will make a pro-rata adjustment for withdrawals to your GMIB value.

For additional examples see "Appendix F – MassMutual Guaranteed Income Plus 5 Examples – 2008 Version."

Eligibility for the GMIB Value. You can only apply the GMIB value to an annuity option on a contract anniversary. You will be eligible to apply all of the GMIB value to an annuity option or a minimum of $10,000 of the GMIB value to an annuity option if:

   1) you elected GMIB 5 or GMIB 6 at time of contract issue and you do not cancel the feature;

2) you participated in an approved Asset Allocation Program at the time of contract issue and until your contract enters the income phase (see "Transfers and Transfer Programs – Asset Allocation Programs");

3) your annuity start date is on the tenth or a subsequent contract anniversary or, if your GMIB value was reset, your annuity start date is on the tenth or a subsequent contract anniversary after the last reset (except as described under item 7);

4) the annuitant is at least age 60 (except as described under item 7);

5) the annuitant is not older than age 90 (for the 2008 Version) or not older than age 85 (for the Pre-2008 Version); and

6) you elect an annuity option available for use with the GMIB value. Available options are as follows:

   a) For the 2008 Version you may elect fixed annuity payments. You may not elect a period certain only annuity option. You may apply all or a minimum of $10,000 of the GMIB value to a lifetime annuity option or a lifetime annuity option with period certain within the following guidelines: If your lifetime annuity option includes a period certain, the period certain cannot be greater than 20 years if the annuitant is age 80 or under; ten years if the annuitant is at or between age 81 and 90; and for contracts issued in New York: 15 years if the annuitant is age 65 or under; ten years if the annuitant is at or between age 66 and 75; and five years if the annuitant is at or between age 76 and 90.

   b) For the Pre-2008 Version, you may elect fixed and/or variable payments. You may apply all or a minimum of $10,000 of the GMIB value to any of our available annuity options, however, if you elect an annuity option with a period certain only, it must be for a period certain of 20 or more years.

Additionally:

7) a) For the 2008 Version, if your contract value is equal to zero, you will be eligible to apply all of the GMIB value to an annuity option if you meet the requirements of items 1, 2 and 6(a) and the annuitant is age 90 or younger. In some cases, your contract value and your GMIB value may both equal zero. In this case, there is no value to apply to an annuity option.

   b) For the Pre-2008 Version, if your contract value is equal to zero, you will be eligible to apply all of the GMIB value to an annuity option if you meet the requirements of items 1, 2 and 6(b) and the annuitant is age 85 or younger. In some cases, your contract value and your GMIB value may both equal zero. In this case, there is no value to apply to an annuity option.

Should you be eligible and request to apply a portion of your GMIB value to an annuity option, on your contract anniversary we will reduce your GMIB value by the amount applied to the annuity option and then increase the remaining GMIB value by an annual interest rate of 5% for GMIB 5 or 6% for GMIB 6.

Fixed Annuity Payment Amounts and the GMIB. When you enter the income phase, we calculate fixed annuity payments using the values which provide the most favorable annuity payment, either:

1) the GMIB value and the fixed guaranteed payout rates in your contract;

2) your contract value and the fixed 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.

Variable Annuity Payment Amounts and the GMIB. For the Pre-2008 Version you may elect fixed and/or variable annuity payments. For the 2008 Version you may not elect variable payments. We calculate the initial variable annuity payment using the values which provide the most favorable annuity payment, either:

1) the GMIB value and the fixed guaranteed payout rates in your contract; or

2) your contract value and the variable guaranteed payout rates.

Future variable payments will depend on the performance of the funds you select. 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.

Annuitant Age and Termination of GMIB 5 and GMIB 6. For the 2008 Version, you may apply your GMIB value to an annuity option until the contract anniversary following the annuitant attaining age 90. After that date, you may no longer apply the GMIB value to an annuity option and the GMIB feature is terminated. If you have not applied your GMIB value to an annuity option as of the contract anniversary following the annuitant attaining age 90, we will increase your contract value to equal 60% of the GMIB value if your contract value is less than 60% of the GMIB value on that date. If your contract value is greater than 60% of the GMIB value, we will make no adjustment.

For the Pre-2008 Version, you may apply your GMIB value to an annuity option until the contract anniversary following the annuitant attaining age 85. After that date, you may no longer apply the GMIB value to an annuity option and the GMIB feature is terminated.

Allocation Restrictions. If you elect GMIB 5 or GMIB 6, you must participate in an approved Asset Allocation Program. See "Transfers and Transfer Programs – Asset Allocation Programs."

If you elect GMIB 5 or GMIB 6, you cannot participate in the Separate Account Dollar Cost Averaging Program, the Interest Sweep Option, a DCA Fixed Account or the Automatic Rebalancing Program. Additionally, you cannot make allocations to the fixed accounts.

Additional Restrictions. You may only elect one GMIB feature. If you elect GMIB 5 or GMIB 6, you may not elect a Guaranteed Minimum Accumulation Benefit or MassMutual Lifetime Payment Plus.

Cost of GMIB 5 and GMIB 6. If you elect GMIB 5 or GMIB 6, we will deduct a charge from your contract value in the funds. The charge for the 2008 Version and Pre-2008 Version GMIB 5 is equal, on an annual basis, to 0.65% of the current GMIB value. The charge for the 2008 Version and Pre-2008 Version GMIB 6 is equal, on an annual basis, to 0.80% of the current GMIB value. We may increase the charge for these features at any time while you own the contract, but the charge for each feature will never exceed 1.50%. We will deduct the charge for GMIB 5 or GMIB 6 quarterly in arrears while the feature remains in effect, commencing on the first quarter of your first contract year. Should you apply your full contract value to an annuity option, cancel this feature or fully surrender your contract, the final charge for this feature will occur on the immediately preceding contract year quarter.

How to Elect GMIB 5 or GMIB 6. To elect GMIB 5 or GMIB 6:

- the annuitant must not be older than age 80 at time of contract issue (for the 2008 Version) or the annuitant must not be older than age 75 at time of contract issue (for the Pre-2008 Version);
- you must elect the feature at the time we issue your contract;
- you must allocate 100% of your purchase payment to an approved Asset Allocation Program (see "Transfers and Transfer Programs – Asset Allocation Programs").

Canceling GMIB 5 or GMIB 6. You can cancel GMIB 5 or GMIB 6. We will terminate your selection of GMIB 5 or GMIB 6 and the associated charge on the business day we receive our form in good order at our Service Center. Once the feature is terminated, it cannot be reinstated.

Withdrawal Benefit for Annuity Options for the Pre-2008 Version. If you elect GMIB 5 or GMIB 6 and later apply all or a portion of your GMIB value to generate variable payments from an annuity option with a period certain, you may withdraw a portion or all of the commuted value of any remaining period certain payments. Partial withdrawals are limited to one per contract year and must be a minimum amount of $5,000. The remaining annuity payments after a partial withdrawal must be at least $100. Any request for a withdrawal will be taken proportionately from the funds that you are invested in as of the date of the withdrawal. Once a withdrawal is made, the remaining period certain annuity payments will be reduced proportionally. Withdrawals will not affect annuity payments that are to be made after the period certain is over, if any.

Basic GMIB

If you elected the Guaranteed Minimum Income Benefit and you applied for your contract prior to September 1, 2007 or in a state where GMIB 5 and GMIB 6 were not available when we issued your contract, then your Guaranteed Minimum Income Benefit feature is the Basic GMIB. We no longer sell contracts offering the Basic GMIB.

Current Charge: 0.60%

Maximum Charge: 1.25%

In the first contract year, the charge is a percentage of your purchase payments. On the last day of your first contract year and on the last day of each contract year thereafter, the annual charge is a percentage of your contract value on that date. We may increase the current charge at any time while you own the contract, but it will never exceed the maximum charge. For additional detail on charge deduction see "Additional Features – Charges for Additional Features."

What is the Basic GMIB? The Basic GMIB is a feature you can elect when we issue your contract. It sets a minimum floor for a future amount that you may apply to an annuity option. We call that amount the GMIB value.

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."

How is the GMIB Value Calculated? The GMIB value will equal:

a) your total purchase payments to your contract as of the end of your 2nd contract year; where
b) on a daily basis each purchase payment is increased by a compounded annual rate of 5% starting from the date each is credited to your contract value until the maximum GMIB value is reached or you begin the income phase;
c) reduced by an adjustment for any withdrawals.

The adjustment for withdrawals is calculated as follows:

i) the withdrawal amount, including any applicable charges;

ii) divided by your contract value immediately prior to the withdrawal; with the result

iii) multiplied by the most recently calculated GMIB value.

The GMIB value may be reduced by more than the actual dollar amount of the withdrawal.

The contract rider describing this Basic GMIB refers to the GMIB Value as the Guaranteed Annuitization Value or the Guaranteed Minimum Income Benefit.

The maximum GMIB value is 200% of the purchase payments made to your contract value in the first two contract years, adjusted for withdrawals. The GMIB value will never be greater than the maximum GMIB value. **When the annuitant reaches age 80, the GMIB value will no longer increase.**

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

Eligibility for the GMIB Value. You will be eligible to apply all or a portion of the GMIB value to an annuity option if:

1) you elected the Basic GMIB at time of contract issue and you do not cancel the feature;
2) you participated in an approved Asset Allocation Program at the time of contract issue and until your contract enters the income phase (see “Transfers and Transfer Programs – Asset Allocation Programs”);
3) your contract is beyond its 7th contract year (we measure a contract year from the anniversary of the day we issued your contract);
4) the annuitant reaches age 60; and
5) you elect to receive fixed annuity payments through a life contingent annuity option (currently Annuity Options A, B, C and D).

Allocation Restrictions. If you elect the Basic GMIB, you must participate in an approved Asset Allocation Program. See “Transfers and Transfer Programs – Asset Allocation Programs.”

If you elect the Basic GMIB, you cannot participate in the Separate Account Dollar Cost Averaging Program, the Interest Sweep Option, a DCA Fixed Account or the Automatic Rebalancing Program. Additionally, you cannot make allocations to the fixed accounts.

Additional Restrictions. If you elect the Basic GMIB, you may not elect a Guaranteed Minimum Accumulation Benefit or MassMutual Lifetime Payment Plus.

Cost of the Basic GMIB. If you elect the Basic GMIB, we will deduct an additional charge of 0.60% of contract value on an annual basis while the feature is in effect. We may increase this charge at any time while you own the contract, but the charge will never exceed 1.25% of contract value on an annual basis. We will no longer make this deduction once you apply your full contract value to an annuity option or cancel the Basic GMIB. If you elect to discontinue the Basic GMIB and its associated benefit, the charge will be discontinued when we receive your request in good order, and we will apply a proportionate credit of the remaining prepaid charge to your contract value.

How to Elect the Basic GMIB. To elect the Basic GMIB:

- the annuitant must be under age 80 at time of contract issue;
- you must elect the feature at the time we issue your contract;
- you must allocate 100% of your purchase payment to an approved Asset Allocation Program (see “Transfers and Transfer Programs – Asset Allocation Programs”).

Canceling the Basic GMIB. We will terminate your selection of this feature on the business day we receive our form in good order at our Service Center. We will apply a proportionate credit of the remaining prepaid charge to your contract value. Once the Basic GMIB is terminated, it cannot be reinstated.

Annuity Payments 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 GMIB 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.

MassMutual Lifetime Payment Plus

MassMutual Lifetime Payment Plus is no longer available. MassMutual Lifetime Payment Plus was available if you applied for your contract on or after January 19, 2008 and prior to March 31, 2009.

See sub-section "Cost of MassMutual Lifetime Payment Plus" for detail about charges for this feature.

Changes to an owner (or an annuitant, if the owner is a non-natural person) may terminate MassMutual Lifetime Payment Plus. Changes to the beneficiary may reduce the value of the benefit.

What is MassMutual Lifetime Payment Plus? MassMutual Lifetime Payment Plus is designed as a guaranteed minimum lifetime withdrawal benefit. If you elect MassMutual Lifetime Payment Plus, we will permit you to receive a specified withdrawal amount annually for life, even if your contract value is zero and subject to the terms and conditions described in this section. There are two versions of this feature: Single Life and Joint Life.

Examples. For examples of how the benefit may work see "Appendix D – MassMutual Lifetime Payment Plus Examples."

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."

How to Elect MassMutual Lifetime Payment Plus. To elect MassMutual Lifetime Payment Plus:

a) elect MassMutual Lifetime Payment Plus at time of contract issue*;

b) participate in an Asset Allocation Program (see "Transfers and Transfer Programs – Asset Allocation Programs"); and

c) designate the covered person(s).

* *See "Payment of the Contract's Death Benefit and MassMutual Lifetime Payment Plus" in this section for rules regarding a spouse's right to re-elect this feature upon death of the owner.*

Canceling MassMutual Lifetime Payment Plus. You can cancel MassMutual Lifetime Payment Plus. We will terminate your election of this feature on the business day we receive our form in good order at our Service Center. The final charge for this feature will occur on the contract year quarter immediately preceding termination. Once the feature is terminated, it cannot be reinstated.

Covered Person(s). The covered person is generally you, the contract owner. You will designate the covered person(s) when you complete your application for the contract. You will designate one covered person if you elect the Single Life version of MassMutual Lifetime Payment Plus and two covered persons if you elect the Joint Life version. The younger covered person must be under age 81 at the time we issue your contract. Once we issue the contract, you cannot change the designated covered person(s).

The covered persons are significant because:

- we offer a guaranteed lifetime withdrawal amount for the life of the covered persons, subject to the terms and conditions described in this section; and
- on the later of your contract issue date or when the younger covered person attains age 60, the benefit base which we use to determine your guaranteed lifetime withdrawal amount will no longer be reduced by withdrawals unless you withdraw more than the guaranteed lifetime withdrawal amount during a contract year.

For purposes of determining benefits under this feature, we will always use the younger covered person's age, even if the older covered person becomes the only surviving covered person.

You will designate the covered person based on the restrictions noted here:

MassMutual Lifetime Payment Plus – Single Life

If you elect single life, you will designate one covered person.

- If an individually owned contract, the covered person must be the contract owner.
- If the owner is a non-natural person, the covered person must be the annuitant.
- If there are joint contract owners, the covered person is the contract owner you designate as the covered person when you complete your application for the contract.
- If there are joint contract owners, they must be spouses and the only primary beneficiaries.

MassMutual Lifetime Payment Plus – Joint Life

If you elect joint life, you will designate two covered persons.

A joint life option can only be elected if your contract is a non-qualified contract or an Individual Retirement Annuity, including a traditional, SEP, Simple, or Roth, excluding Custodial IRAs.

- If an individually owned contract, the covered person must be the contract owner. The second covered person must be the spouse of the contract owner and the sole primary beneficiary.
- If the owner is a non-natural person, the covered person must be the annuitant. The second covered person must be the spouse of the annuitant and the sole primary beneficiary.
- If there are joint contract owners, the covered persons must be spouses, joint contract owners and the only primary beneficiaries.

Some of the benefits of this feature may be unrealized if you elect joint life and there is a subsequent divorce between the covered persons.

The Benefit Base: What We Use to Determine the Guaranteed Withdrawal Amounts. The MassMutual Lifetime Payment Plus benefit base is one of the variables we use when determining how much is available for you to withdraw each contract year. The initial benefit base is your contract value on the date we issue your contract.

The benefit base may increase as a result of:

1) additional purchase payments;
2) credits;
3) an annual ratchet; or
4) an enhancement to the benefit base.

The benefit base may decrease as a result of withdrawals. The benefit base cannot be withdrawn in a lump sum.

The Maximum Benefit Base. The benefit base will never exceed the maximum benefit base we allow which is $5,000,000.

The Guaranteed Lifetime Withdrawal Date. The Guaranteed Lifetime Withdrawal Date is the later of your contract issue date or the date the younger covered person attains age 60. This is the date on which we guarantee the benefit base for life.

On or After the Guaranteed Lifetime Withdrawal Date

The Guaranteed Lifetime Withdrawal Amount. On or after the Guaranteed Lifetime Withdrawal Date, the Guaranteed Lifetime Withdrawal Amount is the annual amount, up to a maximum withdrawal equal to 5% of the benefit base, we guarantee is available for withdrawals each contract year during the life of the covered person(s). After the Guaranteed Lifetime Withdrawal Date, each time the benefit base is changed the Guaranteed Lifetime Withdrawal Amount will equal 5% of the new benefit base.

Impact of Withdrawals on the Benefit Base. Beginning on the Guaranteed Lifetime Withdrawal Date, the benefit base will not reduce if total withdrawals during a contract year are less than or equal to the Guaranteed Lifetime Withdrawal Amount.

If a withdrawal causes total withdrawals during a contract year to exceed the Guaranteed Lifetime Withdrawal Amount, or if total withdrawals during a contract year already exceeded the Guaranteed Lifetime Withdrawal Amount, then the benefit base will equal the lesser of:

1) your contract value immediately after the withdrawal; or
2) the benefit base immediately prior to the withdrawal, minus the amount of the excess withdrawal.

The Guaranteed Lifetime Withdrawal Amount will then equal 5% of the new benefit base.

However, the benefit base will not be reduced if all withdrawals during the contract year are for required minimum distributions we calculate under an automatic distribution program, even if such distributions exceed the Guaranteed Lifetime Withdrawal Amount available in a contract year. We define required minimum distributions as any distribution that we must distribute to you or a plan participant pursuant to IRC Sections 401(a)(9), 403(b)(10), 408(b)(3) or 408A(c). Required minimum distributions are generally required to begin by April 1st of the year after a participant attains age 70½, or for some qualified plans, the year of retirement, if later.

Before the Guaranteed Lifetime Withdrawal Date

The Guaranteed Withdrawal Amount. The only time we issue a contract before the Guaranteed Lifetime Withdrawal Date is if we issue a contract before the youngest covered person has attained age 60. Prior to the Guaranteed Lifetime Withdrawal Date, the Guaranteed Withdrawal Amount is the annual amount up to a maximum percentage that we guarantee is available for withdrawals each contract year prior to the Guaranteed Lifetime Withdrawal Date. On the date we issue your contract, the Guaranteed Withdrawal Amount is equal to 5% of your initial purchase payment to the contract.

After your contract issue date and before the Guaranteed Lifetime Withdrawal Date, the Guaranteed Withdrawal Amount can increase if an annual ratchet, credit or purchase payment would result in a higher Guaranteed Withdrawal Amount than the current Guaranteed Withdrawal Amount. The Guaranteed Withdrawal Amount will decrease only if you make a withdrawal in excess of the Guaranteed Withdrawal Amount or the benefit base reduces to zero.

Impact of Withdrawals on the Benefit Base. Prior to the Guaranteed Lifetime Withdrawal Date, any withdrawal reduces the benefit base. If the withdrawal is less than or equal to the Guaranteed Withdrawal Amount, the withdrawal will reduce the benefit base on a dollar-for-dollar basis. If the withdrawal is greater than the Guaranteed Withdrawal Amount, the benefit base will equal the lesser of:

1) your contract value immediately after the withdrawal; or
2) the benefit base immediately prior to the withdrawal, minus the amount of the withdrawal.

Additional Purchase Payments and the Benefit Base. Each time an additional purchase payment is received prior to the Guaranteed Lifetime Withdrawal Date, the benefit base will increase by the amount of that additional purchase payment.

After the Guaranteed Lifetime Withdrawal Date, an increase to the benefit base due to an additional purchase payment is determined as follows:

1) If there have been no additional purchase payments or annual ratchets since the Guaranteed Lifetime Withdrawal Date, then all withdrawals since the Guaranteed Lifetime Withdrawal Date will be deducted from the additional purchase payment. Any additional purchase payment amount remaining after that deduction will be added to the benefit base.
2) If, since the Guaranteed Lifetime Withdrawal Date, the benefit base has been adjusted due to additional purchase payments or annual ratchets, then the cumulative purchase payments since the last adjustment will be reduced by withdrawals. The withdrawals and additional purchase payments that have not adjusted the benefit base are determined beginning with the later of:
    a) an increase in benefit base by an additional purchase payment; or
    b) an annual ratchet.

Any amount of the current additional purchase payment remaining after the reduction will be added to the benefit base.

We reserve the right to limit additional purchase payments when you have an election of MassMutual Lifetime Payment Plus. We may waive any such additional purchase payment limit in a uniform and nondiscriminatory manner upon prior written notice.

Any purchase payments received on or after the younger covered person attains age 81 will not increase the benefit base.

Credits to the Benefit Base. Each year during the first ten contract years, if no withdrawals are taken during a particular contract year, then the benefit base will increase on the following contract anniversary.

If the benefit base has never been recalculated due to an annual ratchet or withdrawal, we will increase the benefit base by an amount equal to 6% of the sum of: your original benefit base value plus any purchase payments applied to the benefit base after we issued your contract.

If the benefit base was previously recalculated due to an annual ratchet or a withdrawal, then the benefit base will increase each year a withdrawal has not been taken by an amount equal to 6% of the sum of: the benefit base as of the last benefit base recalculation plus any purchase payments applied to the benefit base after such recalculation.

See "Additional Purchase Payments and the Benefit Base" for how we calculate the increase by purchase payments and "Before the Guaranteed Lifetime Withdrawal Date – Impact of Withdrawals on the Benefit Base" for how we calculate the decrease for withdrawals.

Annual Ratchet and the Benefit Base. Before the younger covered person attains age 91, on each contract anniversary we will compare your contract value to your benefit base. If your contract value is greater than your benefit base, we will automatically ratchet up the benefit base to equal your contract value. During your first ten contract years, we will apply any credit to the benefit base before we make this comparison (see "Credits to the Benefit Base"). You may opt out of any annual ratchet by submitting a written request in good order to our Service Center within 30 calendar days prior to your contract anniversary.

Enhanced Benefit Base and Enhanced Benefit Base Date. The benefit base will be enhanced to equal the greater of the benefit base or the enhanced benefit base amount if no withdrawals are taken prior to the enhanced benefit base date, which is the later of:

- ten years from your contract issue date; or
- when the younger covered person reaches age 70.

The enhanced benefit base amount equals:

a) 2 multiplied by any purchase payments applied to the benefit base during the first contract year; plus
b) any purchase payments applied to the benefit base during or after the second contract year and prior to the enhanced benefit base date.

Charges for Withdrawals. If your total withdrawals in each contract year are equal to or less than the applicable Guaranteed Withdrawal Amount or Guaranteed Lifetime Withdrawal Amount, the withdrawal amounts will not be subject to any contingent deferred sales charge. If your total withdrawals in any contract year are greater than the applicable Guaranteed Withdrawal Amount or Guaranteed Lifetime Withdrawal Amount and the contingent deferred sales charge schedule is in effect, then the amount withdrawn in excess will be subject to a contingent deferred sales charge. See "Expenses – Contingent Deferred Sales Charge."

Impact of Withdrawals on Contract Value. Withdrawals will reduce your contract value by the amount of the withdrawal and any applicable contingent deferred sales charge.

Impact of Withdrawals on the Death Benefit. If you elect MassMutual Lifetime Payment Plus, when you make withdrawals we will reduce the value of the death benefit as described in each death benefit calculation. See "Death Benefit – Basic Death Benefit" and "Additional Features – Annual Ratchet Death Benefit."

The Settlement Phase. Your contract enters the settlement phase if the benefit base is greater than zero, but your contract value falls below the minimum contract value we allow after a partial withdrawal. See "Withdrawals."

During the settlement phase we will make settlement payments, but all other rights and benefits under the contract, including death benefits, will terminate and we will not accept additional purchase payments. Additionally, we will no longer deduct the charge for MassMutual Lifetime Payment Plus. For tax reporting purposes we report settlement payments as annuity payments.

We determine the settlement payment amounts as follows:

1) If on or after the Guaranteed Lifetime Withdrawal Date, your contract value falls below the minimum contract value we allow after a partial withdrawal, then we will commence to pay settlement payments each contract year in an amount equal to the Guaranteed Lifetime Withdrawal Amount. Settlement payments will end when there is no longer a surviving covered person.
2) If prior to the Guaranteed Lifetime Withdrawal Date, your contract value falls below the minimum contract value we allow after a partial withdrawal, then we will commence to pay settlement payments each contract year in an amount equal to 5% of the benefit base at the time the contract enters the settlement phase. Settlement payments will end when there is no longer a surviving covered person.

We will pay settlement payments no less frequently than annually.

Choices upon the Latest Permissible Annuity Start Date. Upon the latest permissible annuity start date you must choose to terminate the contract or your contract must enter the Income Phase. The latest permissible annuity start date is discussed in "The Income Phase – Annuity Payment Start Date."

If you enter the Income Phase upon the latest permissible annuity start date:

1) you may elect one of the available annuity options described in "The Income Phase" and apply your contract value to that annuity option; or
2) you may elect to receive annuity payments each contract year in an amount equal to the Guaranteed Lifetime Withdrawal Amount and we will pay such annuity payments until there is no longer a surviving covered person.

Once annuity payments begin all other rights and benefits under the contract, including death benefits, will terminate and we will no longer accept additional purchase payments. We will also no longer deduct the charge for MassMutual Lifetime Payment Plus. For more information about annuity options see "The Income Phase."

Payment of the Contract's Death Benefit and MassMutual Lifetime Payment Plus. If you have an election of MassMutual Lifetime Payment Plus and a death benefit is paid from the contract:

- if the beneficiary takes the death benefit in a lump sum under the terms of the contract, MassMutual Lifetime Payment Plus will no longer be in effect;
- if the beneficiary does not take the death benefit in a lump sum, then:
  1) If the deceased owner (or the annuitant, if the owner is a non-natural person) is the last surviving covered person, MassMutual Lifetime Payment Plus will no longer be in effect. If the beneficiary is the covered person's spouse, he or she may continue the contract and apply for a new MassMutual Lifetime Payment Plus subject to availability and our then current rules and fees.
  2) If the deceased owner (or the annuitant, if the owner is a non-natural person) is not the last surviving covered person, MassMutual Lifetime Payment Plus will continue provided the covered person continues the contract pursuant to IRC Section 72(s)(3) or 401(a)(9).

Allocation Restrictions. If you elect MassMutual Lifetime Payment Plus, you must participate in an approved Asset Allocation Program. See "Transfers and Transfer Programs – Asset Allocation Programs." If you elect MassMutual Lifetime Payment Plus, you cannot participate in the Separate Account Dollar Cost Averaging Program, the Interest Sweep Option, a DCA Fixed Account or the Automatic Rebalancing Program. Additionally, you cannot make allocations to the fixed accounts.

Additional Restrictions. If you elect MassMutual Lifetime Payment Plus, you may not elect a Guaranteed Minimum Accumulation Benefit or a Guaranteed Minimum Income Benefit.

Termination of MassMutual Lifetime Payment Plus. The MassMutual Lifetime Payment Plus feature will terminate upon the earlier of:

1) the date a death benefit is payable and the beneficiary takes the death benefit as a lump sum under the terms of the contract;
2) the date the full contract value is applied to an annuity option;

3) the date your contract value and the benefit base both equal zero;
4) the date there is no longer a surviving covered person;
5) the business day we receive in good order at our Service Center your request (submitted on our form) to terminate the feature; or
6) the date the contract is terminated.

If the MassMutual Lifetime Payment Plus feature is terminated, it cannot be re-elected.

Cost of MassMutual Lifetime Payment Plus. If you elect MassMutual Lifetime Payment Plus, we will deduct a charge from your contract value in the funds. The charge is equal, on an annual basis, to a percentage of the benefit base as of the date the charge is deducted. We may increase this charge at any time while you own the contract, but the charge will never exceed 1.50%. We will deduct the charge quarterly in arrears while the feature remains in effect, commencing on the first quarter of your first contract year. Should you enter the settlement phase, apply your full contract value to an annuity option, cancel this feature or fully surrender your contract, the final charge for this feature will occur on the immediately preceding contract year quarter. Currently, the charge is as follows: MassMutual Lifetime Payment Plus – Single Life 0.60%; MassMutual Lifetime Payment Plus – Joint Life 0.85%.

Important MassMutual Lifetime Payment Plus Considerations. This feature may not be appropriate for all contract owners. You should understand MassMutual Lifetime Payment Plus completely before you elect this feature.

MassMutual Lifetime Payment Plus does not in any way guarantee the performance of any of the investment choices available under the contract.

Postponing withdrawals may positively impact the benefit base as described in "MassMutual Lifetime Payment Plus – Credits to the Benefit Base" earlier in this section. However, if you postpone the taking of withdrawals, you may limit the value of this feature because your remaining life expectancy shortens as you age.

Excess withdrawals may significantly reduce or eliminate the value of the guarantees provided by this feature. Excess withdrawals are those in excess of the Guaranteed Lifetime Withdrawal Amount or, if taken prior to the youngest covered person reaching age 60, excess withdrawals are those in excess of the Guaranteed Withdrawal Amount.

Because the charge for MassMutual Lifetime Payment Plus is a percentage of the benefit base, an increase in the benefit base will result in an increase in the cost of the feature.

Please consult with a qualified financial professional when you are evaluating MassMutual Lifetime Payment Plus and all other aspects of the contract.

Equalizer Benefit

The Equalizer Benefit is no longer available.

Current Charge: 0.50%

Maximum Charge: 0.60%

In the first contract year, the charge is a percentage of your purchase payments. On the last day of your first contract year and on the last day of each contract year thereafter, the annual charge is a percentage of your contract value on that date. We may increase the current charge at any time while you own the contract, but it will never exceed the maximum charge. For additional detail on charge deduction see "Additional Features – Charges for Additional Features."

For an additional charge, at time of contract issue you can elect the equalizer benefit. 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.

You may only elect this additional feature at the time you apply for a contract. You may cancel this feature at any time. The cancellation will be effective on the contract anniversary following your request.

We will pay the equalizer benefit only until you or the oldest joint owner (or an annuitant, if the owner is a non-natural person) reaches age 80. You may not elect the equalizer benefit if you or the oldest joint owner (or an annuitant, if the owner is a non-natural person) is age 70 or older when we issue your contract.

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."

Cost of the Equalizer Benefit. If you elect the equalizer benefit, we deduct an additional charge of 0.50% while the feature is in effect. 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.

How is the Credit Calculated? We base the credit on 10% of net earnings for each benefit period. The credit will never be less than zero. For the initial benefit period, we define earnings as the difference between your contract value and your purchase payments (less withdrawals) made during 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 during the just ended benefit period;
- plus withdrawals made during the just ended benefit period;
- minus the equalizer benefit from the immediately preceding benefit period.

We consider requests to apply part of your contract value to an annuity option as a withdrawal for purposes of calculating the equalizer benefit. We will not count benefits that are paid as earnings when we determine the earnings amount for the subsequent benefit period. If you terminate this benefit during a benefit period, we will not pay you any benefit for that benefit period.

We will limit individual payments of the benefit to 40% of the amount of your total purchase payments less any withdrawals.

Appendix D

MassMutual Lifetime Payment Plus Examples

Example 1 ~ Single Life – Setting Initial Values

The values shown are based on the following assumptions:

- owner age at issue = 60
- initial purchase payment = $100,000
- Guaranteed Lifetime Withdrawal Amount immediately applies as the covered person is age 60 on the contract issue date

Contract Year (beginning of year)	Age	Purchase Payment	Withdrawal	Contract Value	Credit	Available GLWA [1]	Benefit Base
1	60	$100,000	$0	$100,000	$0	$5,000	$100,000

1 *Guaranteed Lifetime Withdrawal Amount.*

On the contract issue date, the initial values are set as follows:

- Benefit base = initial purchase payment = $100,000.
- Guaranteed Lifetime Withdrawal Amount = 5% of benefit base = $5,000.

Example 2 ~ Single Life – Credit

The values shown are based on the following assumptions:

- owner age at issue = 60
- initial purchase payment = $100,000
- Guaranteed Lifetime Withdrawal Amount immediately applies as the covered person is age 60 on the contract issue date

Contract Year (end of year)	Age	Purchase Payment	Withdrawal	Contract Value	Credit	Available GLWA [1]	Benefit Base
1	60	$100,000	$0	$105,001	$6,000	$5,300	$106,000

1 *Guaranteed Lifetime Withdrawal Amount reflects amount available to withdraw during the next contract year.*

- At the end of the first contract year, since there were no withdrawals, a credit of 6% of the initial benefit base is applied = $6,000.
- Benefit base = initial benefit base plus credit = $106,000.
- Guaranteed Lifetime Withdrawal Amount for contract year two = 5% of benefit base = $5,300.

Example 3 ~ Single Life – Withdrawal of Guaranteed Lifetime Withdrawal Amount

The values shown are based on the following assumptions:

- owner age at issue = 60
- initial purchase payment = $100,000
- Guaranteed Lifetime Withdrawal Amount immediately applies as the covered person is age 60 on the contract issue date

Contract Year (end of year)	Age	Purchase Payment	Withdrawal	Contract Value	Credit	Available GLWA [1]	Benefit Base
1	60	$100,000	$ 0	$105,001	$6,000	$5,300	$106,000
2	61		0	110,245	6,000	5,600	112,000
3	62		0	115,748	6,000	5,900	118,000
4	63		0	121,522	6,000	6,200	124,000
5	64		6,200	121,384	0	6,200	124,000

1 *Guaranteed Lifetime Withdrawal Amount reflects amount available to withdraw during the next contract year.*

- Since there were no withdrawals during contract years one through four, at the end of each of those contract years, a credit of 6% of the initial benefit base is applied = $6,000.
- The benefit base at the end of contract year four = $124,000.
- Guaranteed Lifetime Withdrawal Amount for contract year five = 5% of benefit base ($124,000) = $6,200.
- A withdrawal of $6,200 is taken in contract year five. A credit is not applied.
- The benefit base remains at $124,000 as the withdrawal was not greater than the Guaranteed Lifetime Withdrawal Amount.

Example 4 ~ Single Life – Withdrawal Exceeding the Guaranteed Lifetime Withdrawal Amount

The values shown are based on the following assumptions:

- owner age at issue = 60
- initial purchase payment = $100,000
- Guaranteed Lifetime Withdrawal Amount immediately applies as the covered person is age 60 on the contract issue date

Contract Year (end of year)	Age	Purchase Payment	Withdrawal	Contract Value	Credit	Available GLWA [1]	Benefit Base
1	60	$100,000	$ 0	$105,001	$6,000	$5,300	$106,000
2	61		0	110,245	6,000	5,600	112,000
3	62		0	115,748	6,000	5,900	118,000
4	63		0	121,522	6,000	6,200	124,000
5	64		0	127,584	6,000	6,500	130,000
6	65		0	133,949	6,000	6,800	136,000
7	66		0	140,635	6,000	7,100	142,000
8	67		15,000	132,673	0	6,644	132,872
9	68		0	139,307	7,972	7,042	140,845
10	69		0	146,263	7,972	7,441	148,817

1 *Guaranteed Lifetime Withdrawal Amount reflects amount available to withdraw during the next contract year.*

- Since there were no withdrawals during contract years one through seven, at the end of each of those contract years, a credit of 6% of the initial benefit base is applied = $6,000.
- The benefit base at the end of contract year seven = $142,000.
- Guaranteed Lifetime Withdrawal Amount for contract year eight = 5% of benefit base ($142,000) = $7,100.
- A withdrawal of $15,000 is taken in contract year eight. A credit is not applied.
- The withdrawal is greater than the Guaranteed Lifetime Withdrawal Amount ($7,100). This results in an excess withdrawal $15,000 – $7,100 = $7,900.
- Contract value prior to the withdrawal = $147,872.
- The benefit base is recalculated to equal to $132,872 which is the lesser of the:
  a) contract value after the excess withdrawal = $147,872 – $15,000 = $132,872; or
  b) benefit base prior to the withdrawal minus the excess withdrawal = $142,000 – $7,900 = $134,100.
- The Guaranteed Lifetime Withdrawal Amount available for contract year nine = 5% of the new benefit base ($140,845) = $6,644.
- The contract value is reduced by the amount of the withdrawal including any applicable contingent deferred sales charges.

Example 5 ~ Single Life – Annual Ratchet

The values shown are based on the following assumptions:

- owner age at issue = 60
- initial purchase payment = $100,000
- Guaranteed Lifetime Withdrawal Amount immediately applies as the covered person is age 60 on the contract issue date

Contract Year (end of year)	Age	Purchase Payment	Withdrawal	Contract Value	Credit	Available GLWA [1]	Benefit Base
1	60	$100,000	$0	$105,001	$6,000	$5,300	$106,000
2	61			110,245	6,000	5,600	112,000
3	62			117,899	6,000	5,900	118,000
4	63			126,095	6,000	6,305	126,095

1 *Guaranteed Lifetime Withdrawal Amount reflects amount available to withdraw during the next contract year.*

- At the end of contract years one through four, a credit of 6% of the initial benefit base ($100,000) is applied, as withdrawals were not taken during this time period.
- The benefit base at the end of contract year four is set equal to the contract value of $126,095 as it is greater than the benefit base plus the credit ($118,000 + $6,000 = $124,000).
- The Guaranteed Lifetime Withdrawal Amount available for contract year five = 5% of the new benefit base ($126,095) = $6,305.

Example 6 ~ Single Life – Withdrawals Not Exceeding the Guaranteed Withdrawal Amount and Transitioned to Guaranteed Lifetime Withdrawal Amount

The values shown are based on the following assumptions:

- owner age at issue = 52
- initial purchase payment = $100,000
- Guaranteed Withdrawal Amount applies until the covered person is age 60

Contract Year end of year)	Age of Covered Person	Purchase Payment	Withdrawal	Contract Value	Credit	Available GWA/ GLWA [1]	Benefit Base
1	53	$100,000	$ 0	$100,122	$6,000	$5,300	$106,000
2	54		0	100,209	6,000	5,600	112,000
3	55		0	100,260	6,000	5,900	118,000
4	56		0	100,276	6,000	6,200	124,000
5	57		6,200	94,065	0	6,200	117,800
6	58		0	93,997	5,628	6,200	123,428
7	59		6,200	87,704	0	6,200	117,228
8	60		6,200	81,403	0	5,551	111,028

1 *Guaranteed Withdrawal Amount / Guaranteed Lifetime Withdrawal Amount reflects amount available to withdraw during the next contract year.*

- At the end of contract years one through four, a credit of 6% of the initial benefit base ($100,000) is applied, as withdrawals were not taken during this time period.
- Benefit base at the end of year four = $124,000.
- The Guaranteed Withdrawal Amount for contract year five = 5% of benefit base ($124,000) = $6,200.
- A withdrawal of $6,200 is taken at the end of contract year five, so a credit is not applied.
- The benefit base is reduced by the amount of the withdrawal, as the withdrawal is taken prior to attainment of age 60 of the covered person.
- The Guaranteed Withdrawal Amount remains at $6,200, as the withdrawal was not greater than the Guaranteed Withdrawal Amount.
- The withdrawal in contract year eight is taken prior to attainment of age 60.
- At the end of contract year eight, the benefit base of $111,028 locks in as the benefit base as the covered person is age 60. The Guaranteed Withdrawal Amount for contract year nine = 5% of benefit base ($111,028) = $5,551.

Example 7 ~ Single Life – Withdrawal Exceeding the Guaranteed Withdrawal Amount – Prior to Age 60

The values shown are based on the following assumptions:

- owner age at issue = 54
- initial purchase payment = $100,000
- Guaranteed Withdrawal Amount applies until the covered person is age 60

Contract Year (end of year)	Age of Covered Person	Purchase Payment	Withdrawal	Contract Value	Credit	Available GWA/ GLWA [1]	Benefit Base
1	55	$100,000	$ 0	$100,122	$6,000	$5,300	$106,000
2	56		0	100,209	6,000	5,600	112,000
3	57		0	100,260	6,000	5,900	118,000
4	58		0	100,276	6,000	6,200	124,000
5	59		10,000	90,442	0	4,522	90,442

1 *Guaranteed Withdrawal Amount / Guaranteed Lifetime Withdrawal Amount reflects amount available to withdraw during the next contract year.*

- Since there were no withdrawals during contract years one through four, at the end of each of those contract years, a credit of 6% of the initial benefit base is applied = $6,000.
- The benefit base at the end of contract year four = $124,000.
- Guaranteed Withdrawal Amount for contract year five = 5% of benefit base ($124,000) = $6,200.
- A withdrawal of $10,000 is taken in contract year five. A credit is not applied.
- The contract value prior to the withdrawal = $100,442.
- The withdrawal is greater than the Guaranteed Withdrawal Amount = $6,200. This results in an excess withdrawal = $10,000 – $6,200 = $3,800.
- The benefit base is recalculated to equal to $90,442 which is the lesser of the:
  a) contract value after the excess withdrawal = $100,442 – $10,000 = $90,442; or
  b) benefit base prior to the withdrawal minus the withdrawal = $124,000 – $10,000 = $114,000.
- The Guaranteed Lifetime Withdrawal amount available for contract year six = 5% of the new benefit base ($90,442) = $4,522.
- The contract value is reduced by the amount of the withdrawal.

Example 8 ~ Single Life – Enhanced Benefit Base

The values shown are based on the following assumptions:

- owner age at issue = 60
- initial purchase payment = $100,000
- Guaranteed Lifetime Withdrawal Amount immediately applies as the covered person is age 60 on the contract issue date
- no withdrawals taken

Contract Year (end of year)	Age of Covered Person	Purchase Payment	Withdrawal	Contract Value	Credit	Available GLWA [1]	Benefit Base
1	61	$100,000	$0	$105,001	$6,000	$ 5,300	$106,000
2	62			110,245	6,000	5,600	112,000
3	63			115,748	6,000	5,900	118,000
4	64			121,522	6,000	6,200	124,000
5	65			127,584	6,000	6,500	130,000
6	66			133,949	6,000	6,800	136,000
7	67			140,635	6,000	7,100	142,000
8	68			147,659	6,000	7,400	148,000
9	69			155,041	6,000	7,752	155,041
10	70			162,795	9,302	10,000	200,000

1 *Guaranteed Lifetime Withdrawal Amount reflects amount available to withdraw during the next contract year.*

- Since there were no withdrawals during contract years one through nine, at the end of each of those contract years, a credit of 6% of the initial benefit base is applied = $6,000.
- At the end of contract year nine, an annual ratchet applies, as the contract value of $155,041 is greater than the benefit base of $154,000 ($148,000 + $6,000 = $154,000).
- At the end of contract year ten, since there where no withdrawals, a credit of 6% of the last ratcheted benefit base ($155,041) applies = 6% x $155,041 = $9,302.
- At the end of contract year ten, the benefit base = $155,041 + $9,302 = $164,343.
- Since withdrawals were not taken during the first ten contract years, and the covered person has attained age 70, at the end of contract year ten, the benefit base is set equal to 200% of the initial purchase payment = $200,000 as it is greater than $164,343.
- Guaranteed Lifetime Withdrawal Amount for contract year eleven = 5% of new benefit base ($200,000) = $10,000.

Example 9 ~ Single Life – Additional Purchase Payments

The values shown are based on the following assumptions:

- owner age at issue = 60
- initial purchase payment = $100,000
- Guaranteed Lifetime Withdrawal Amount immediately applies as the covered person is age 60 on the contract issue date
- no withdrawals taken

Contract Year (end of year)	Age of Covered Person	Purchase Payment	Withdrawal	Contract Value	Credit	Available GLWA [1]	Benefit Base
1	61	$100,000	$0	$105,001	$ 6,000	$ 5,300	$106,000
2	62	25,000		136,496	7,500	6,925	138,500
3	63	25,000		169,559	9,000	8,625	172,500
4	64	25,000		204,271	10,500	10,400	208,000
5	65	0		214,463	10,500	10,925	218,500
6	66	0		225,163	10,500	11,450	229,000
7	67	0		236,399	10,500	11,975	239,500
8	68	0		248,202	10,500	12,500	250,000
9	69	0		258,310	10,500	13,025	260,500
10	70	0		268,828	10,500	13,750	275,000

1 *Guaranteed Lifetime Withdrawal Amount reflects amount available to withdraw during the next contract year.*

- An additional purchase payment of $25,000 is made at the beginning of contract years two, three and four.
- The benefit base is increased by the purchase payments.
- The credit increases in contract years two, three and four due to the additional purchase payments.
- At the end of contract year ten, since there were no withdrawals, a credit of 6% of the total purchase payment applies = 6% x $175,000 = $10,500.
- At the end of contract year ten, the benefit base = $260,500 + $10,500 = $271,000.
- Since withdrawals were not taken during the first ten contract years, and the covered person has attained age 70, at the end of contract year ten, the benefit base is set equal to 200% of purchase payments in the first contract year, as well as 100% of purchase payments made in contract years two through ten = ($100,000 x 200%) + ($75,000 x 100%) = $275,000.
- The benefit base is set equal to $275,000 as it is greater than $271,000.
- Guaranteed Lifetime Withdrawal Amount for contract year eleven = 5% of new benefit base ($275,000) = $13,750.

Appendix E

Guaranteed Minimum Accumulation Benefit Examples

Example 1 ~ Setting of Initial Values

The values shown are based on the following assumptions:

- owner age at issue = 60
- annuitant = same as owner
- initial purchase payment = $100,000

Contract Year (beginning of year)	Purchase Payment	Withdrawal	Contract Value	GMAB Value
1	$100,000	$0	$100,000	$100,000

- On the contract issue date, the GMAB value is equal to the initial purchase payment. The GMAB value will be increased by any purchase payments received in the first two contract years.

Example 2 ~ Annual Reset

The values shown are based on the following assumptions:

- owner age at issue = 60
- annuitant = same as owner
- initial purchase payment = $100,000
- death benefit = Basic Death Benefit

Contract Year (end of year)	Age	Purchase Payment	Withdrawal	Contract Value	GMAB Value	Death Benefit
1	61	$100,000	$0	$107,085	$100,000	$107,085
2	62			114,672	114,672	114,672
3	63			122,796	122,796	122,796
4	64			131,496	131,496	131,496
5	65			140,813	140,813	140,813
6	66			150,789	140,813	150,789
7	67			161,473	140,813	161,473
8	68			172,913	140,813	172,913
9	69			185,164	140,813	185,164
10	70			198,282	140,813	198,282
11	71			212,330	140,813	212,330
12	72			227,374	140,813	227,374
13	73			243,483	140,813	243,483
14	74			260,864	140,813	260,864
15	75			279,486	140,813	279,486
16	76			300,791	0	300,791

- On the contract issue date, the GMAB value is equal to the initial purchase payment of $100,000.
- Beginning on the second contract anniversary, the owner resets the GMAB to the contract value. The owner requests this reset each contract year through year five.
- At the end of the tenth contract year from the last reset, the contract value is greater than the GMAB value. The contract value remains as is, and the GMAB value is set to zero.

Example 3 ~ Impact of a Withdrawal

The values shown are based on the following assumptions:

- owner age at issue = 60
- annuitant = same as owner
- initial purchase payment = $100,000
- death benefit = Basic Death Benefit

Contract Year (end of year)	Age	Purchase Payment	Withdrawal	Contract Value	GMAB Value	Death Benefit
1	61	$100,000	$ 0	$107,085	$100,000	$107,085
2	62		0	114,672	100,000	114,672
3	63		0	122,796	100,000	122,796
4	64		0	131,496	100,000	131,496
5	65		0	140,813	100,000	140,813
6	66		0	150,789	100,000	150,789
7	67		0	161,473	100,000	161,473
8	68		15,000	157,913	91,325	157,913
9	69		0	169,101	91,325	169,101
10	70		0	181,082	91,325	181,082
11	71		0	194,788	0	194,788

- On the contract issue date, the GMAB value is equal to the initial purchase payment of $100,000.
- The owner does not elect to reset the benefit.
- A withdrawal of $15,000 is taken in contract year eight.
- As a result of the withdrawal, the GMAB value is reduced in direct proportion to the contract value reduction for the withdrawal.
  - The contract value prior to withdrawal = $172,913.
  - The GMAB value after the withdrawal = GMAB value prior to the withdrawal – ((withdrawal / contract value prior to the withdrawal) x (GMAB value prior to the withdrawal)).

    GMAB value = $100,000 – (($15,000 / $172,913) x ($100,000)) = $100,000 – $8,675 = $91,325.
- The contract value is reduced for the amount of the withdrawal. The return of premium portion of the death benefit is reduced proportionately for the withdrawal.
- At the end of the tenth contract year, the contract value is greater than the GMAB value. The contract value remains as is, and the GMAB value is set to zero.

Example 4 ~ Additional Purchase Payments

The values shown are based on the following assumptions:

- owner age at issue = 60
- annuitant = same as owner
- initial purchase payment = $100,000
- death benefit = Basic Death Benefit

Contract Year (end of year)	Age	Purchase Payment	Withdrawal	Contract Value	GMAB Value	Death Benefit
1	61	$100,000	$0	$107,085	$100,000	$107,085
2	62	25,000		141,443	125,000	141,443
3	63	25,000		178,235	125,000	178,235
4	64	25,000		217,635	125,000	217,635
5	65	0		233,054	125,000	233,054
6	66	0		249,566	125,000	249,566
7	67	0		267,381	125,000	267,381
8	68	0		286,468	125,000	286,468
9	69	0		306,917	125,000	306,917
10	70	0		328,826	125,000	328,826
11	71	0		353,892	0	353,892

- On the contract issue date, the GMAB value is equal to the initial purchase payment of $100,000.
- The owner does not elect to reset the benefit.
- Additional purchase payments are made in the beginning of contract years two, three and four.
- The GMAB value is increased for the purchase payment made in the second contract year.
- The GMAB value is not increased for the purchase payments made in contract years three and four.
- At the end of the tenth contract year, the contract value attributed to the purchase payments in contract years one and two is $234,876 = $328,826 x ($125,000 / $175,000). The applicable contract value attributed to purchase payments made during contract years one and two adjusted for withdrawals and investment performance ($234,876) is compared to the GMAB value to determine the GMAB credit. Since this is greater than the GMAB value of $125,000, the contract value remains as is, and the GMAB value is set to zero. If the GMAB value exceeds the applicable contract value attributed to purchase payments made during contract years one and two adjusted for withdrawals and investment performance ($234,876), we will increase the contract value to equal the GMAB value.

Appendix F

MassMutual Guaranteed Income Plus 5 Examples – 2008 Version

Example 1 ~ Setting of Initial Values

The values shown are based on the following assumptions:

- owner age at issue = 60
- annuitant = same as owner
- initial purchase payment = $100,000
- no withdrawals are taken

Contract Year (beginning of year)	Purchase Payment	Withdrawal	Contract Value	GMIB Value	Monthly Income Benefit
1	$100,000	$0	$100,000	$105,000	$0

- On the contract issue date, the GMIB value is equal to the initial purchase payment increased by 5%.

Example 2 ~ No Withdrawals

The values shown are based on the following assumptions:

- owner age at issue = 60
- annuitant = same as owner
- initial purchase payment = $100,000
- death benefit = Basic Death Benefit

Contract Year (end of year)	Age	Purchase Payment	Withdrawal	Contract Value	GMIB Value	Monthly Income Benefit	Death Benefit
1	61	$100,000	$0	$104,916	$105,000	$ 0	$104,916
2	62			110,074	110,250	0	110,074
3	63			115,485	115,763	0	115,485
4	64			121,161	121,551	0	121,161
5	65			127,115	127,628	0	127,115
6	66			133,361	134,010	0	133,361
7	67			139,913	140,710	0	139,913
8	68			146,786	147,746	0	146,786
9	69			153,996	155,133	0	153,996
10	70			161,559	162,889	831	161,559

- On the contract issue date, the GMIB value is equal to the initial purchase payment increased by 5%.
- On the first day of each contract year, the GMIB value is increased by 5%.
- At the end of the tenth contract year, the GMIB can be exercised and begin an income stream. The Monthly Income Benefit value of $831 is the monthly income amount that would be received by annuitizing the GMIB value of $162,889 for a male age 70 for a life income annuity option.

Example 3 ~ Withdrawals Reducing the GMIB Value Dollar for Dollar

The values shown are based on the following assumptions:

- owner age at issue = 60
- annuitant = same as owner
- initial purchase payment = $100,000
- death benefit = Basic Death Benefit

Contract Year (end of year)	Age	Purchase Payment	Withdrawal	Contract Value	GMIB Value	Monthly Income Benefit	Death Benefit
1	61	$100,000	$ 0	$104,916	$105,000	$ 0	$104,916
2	62		5,250	104,833	105,000	0	104,833
3	63		5,250	104,744	105,000	0	104,744
4	64		5,250	104,651	105,000	0	104,651
5	65		5,250	104,552	105,000	0	104,552
6	66		5,250	104,448	105,000	0	104,448
7	67		5,250	104,337	105,000	0	104,337
8	68		5,250	104,221	105,000	0	104,221
9	69		5,250	104,098	105,000	0	104,098
10	70		5,250	103,968	105,000	535	103,968

- On the contract issue date, the GMIB value is equal to the initial purchase payment increased by 5%.
- On the first day of each contract year, the GMIB value is increased by 5%.
- Beginning in the second contract year, withdrawals of the GMIB interest are taken; the GMIB value is reduced dollar for dollar since the withdrawals are equal to the GMIB interest.
- The contract value is reduced by the amount of the withdrawals. The return of premium aspect of the death benefit is reduced proportionately for the withdrawals.
- At the end of the tenth contract year, the GMIB can be exercised and begin an income stream. The Monthly Income Benefit value of $535 is the monthly income amount that would be received by annuitizing the GMIB value of $105,000 for a male age 70 for a life income annuity option.

Example 4 ~ Annual Reset

The values shown are based on the following assumptions:

- owner age at issue = 60
- annuitant = same as owner
- initial purchase payment = $100,000
- death benefit = Basic Death Benefit

Contract Year (end of year)	Age	Purchase Payment	Withdrawal	Contract Value	GMIB Value	Monthly Income Benefit	Death Benefit
At Issue	60	$100,000	$0	$100,000	$105,000	$0	$100,000
1	61			106,867	106,867		106,867
2	62			114,206	114,206		114,206
3	63			122,050	122,050		122,050
4	64			130,431	130,431		130,431
5	65			139,388	139,388		139,388
6	66			148,961	148,961		148,961
7	67			159,191	159,191		159,191
8	68			170,123	170,123		170,123
9	69			181,806	181,806		181,806
10	70			194,291	194,291		194,291

- On the contract issue date, the GMIB value is equal to the initial purchase payment increased by 5%.
- On the first day of each contract year, the GMIB value is increased by 5%.
- Each contract anniversary, prior to the annuitant attaining age 81, if your contract value is greater than your GMIB value, we will reset your GMIB value to equal your contract value (unless you instruct otherwise by written request). The GMIB value will then be increased by 5%.
- At the end of the tenth contract year from the last reset, the GMIB can be exercised and begin an income stream.

Example 5 ~ Additional Purchase Payments

The values shown are based on the following assumptions:

- owner age at issue = 60
- annuitant = same as owner
- initial purchase payment = $100,000
- death benefit = Basic Death Benefit

Contract Year (end of year)	Age	Purchase Payment	Withdrawal	Contract Value	GMIB Value	Monthly Income Benefit	Death Benefit
1	61	$100,000	$0	$104,916	$105,000	$0	$104,916
2	62	25,000		136,303	136,500		136,303
3	63	25,000		169,407	169,407		169,407
4	64	25,000		204,139	204,139		204,139
5	65	0		214,175	214,346		214,175
6	66	0		224,704	225,063		224,704
7	67	0		235,749	236,316		235,749
8	68	0		247,336	248,132		247,336
9	69	0		259,620	260,538		259,620
10	70	0		272,514	273,565		272,514

- On the contract issue date, the GMIB value is equal to the initial purchase payment increased by 5%.
- On the first day of each contract year, the GMIB value is increased by 5%.
- A purchase payment of $25,000 is made at the beginning of contract years two, three and four.
- The GMIB value in contract year two is increased by the amount of the purchase payment.
- The purchase payments in contract years three and four are not included in the GMIB value, although the GMIB value increases due to the automatic reset.
- At the end of the tenth contract year from the last reset, the GMIB can be exercised and begin an income stream.

Example 6 ~ 60% GMIB Value at Age 90

The values shown are based on the following assumptions:

- owner age at issue = 75
- annuitant = same as owner
- initial purchase payment = $125,000
- rider effective date = contract issue date
- death benefit = Basic Death Benefit

Contract Year (end of year)	Age	Purchase Payment	Withdrawal	Contract Value	GMIB Value	Monthly Income Benefit	Death Benefit
1	76	$125,000	$6,250	$117,590	$125,000	$ 0	$118,702
2	77		6,250	110,199	125,000	0	112,342
3	78		6,250	102,827	125,000	0	105,917
4	79		6,250	95,473	125,000	0	99,422
5	80		6,250	88,098	125,000	0	92,853
6	81		6,250	80,742	125,000	0	86,200
7	82		6,250	73,405	125,000	0	79,457
8	83		6,250	66,086	125,000	0	72,615
9	84		6,250	58,786	125,000	0	65,663
10	85		6,250	51,504	125,000	1,142	58,587
11	86		6,250	44,241	125,000	1,199	51,369
12	87		6,250	36,997	125,000	1,259	43,987
13	88		6,250	29,770	125,000	1,324	36,406
14	89		6,250	22,563	125,000	1,393	28,575
15	90		6,250	75,000	125,000	0	75,000

- On the contract issue date, the GMIB value is equal to the initial purchase payment increased by 5%.
- Each contract year the GMIB value is increased by 5%.
- Withdrawals of the allowable GMIB amount are taken each contract year.
- At the end of the fifteenth contract year, the owner elects not to annuitize the GMIB value. Because the contract value is below 60% of the GMIB value in this example, the contract value is increased to 60% of the GMIB value at age 90. The GMIB terminates.

Example 7 ~ Impact of Contingent Deferred Sales Charge (CDSC) When 5% Withdrawn is Greater than Free Withdrawal Allowance

The values shown are based on the following assumptions:

- owner age at issue = 60
- annuitant = same as owner
- initial purchase payment = $100,000
- rider effective date = contract issue date
- death benefit = Basic Death Benefit

Contract Year (end of year)	Age	Purchase Payment	Withdrawal	Contract Value	GMIB Value	Death Benefit
1	61	$100,000	$5,000	$82,352	$100,000	$94,288
2	62		5,000	66,820	100,000	87,740
3	63		5,000	53,150	100,000	80,219
4	64		5,000	41,119	100,000	71,555
5	65		5,000	30,484	100,000	61,442

- On the contract issue date, the GMIB value is equal to the initial purchase payment increased by 5%.
- On the first day of each contract year, the GMIB value is increased by 5%.
- Withdrawals of the allowable GMIB amount are taken each contract year.
- In the fifth contract year, the free withdrawal amount is $4,112. The amount withdrawn of $5,000 is greater than the 10% free withdrawal amount. The contract value is reduced by the withdrawal amount including any applicable CDSC. The CDSC is assessed on the value withdrawn in excess of the free withdrawal amount. The GMIB value remains at $100,000; it is not reduced by the CDSC, as the amount withdrawn is not greater than the allowed GMIB amount.
- The return of premium aspect of the death benefit is reduced proportionately for the withdrawals.

Appendix G – Funds

2008 Version: Contracts Applied for on or after 9/8/2008, Subject to State Availability

The contract offers the following funds. We may add, remove, close or substitute funds.

Fund Type	Investment Funds in Which the Sub-Accounts Purchase Shares	Investment Fund's Adviser and Sub-Adviser
Asset Allocation		
	MML Aggressive Allocation Fund (Service) [1]	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** N/A
	MML American Funds Core Allocation Fund (Service Class I) [1]	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** N/A
	MML Balanced Allocation Fund (Service) [1]	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** N/A
	MML Conservative Allocation Fund (Service) [1]	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** N/A
	MML Growth Allocation Fund (Service) [1]	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** N/A
	MML Moderate Allocation Fund (Service) [1]	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** N/A
Money Market		
	MML U.S. Government Money Market Fund (Initial Class) [2]	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Barings LLC
Fixed Income		
	MML High Yield Fund (Service Class I)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Barings LLC
	MML Inflation-Protected and Income Fund (Service)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Barings LLC
	MML Managed Bond Fund (Service)	***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
	Oppenheimer Global Strategic Income Fund/VA (Service)	***Adviser:*** OFI Global Asset Management, Inc. ***Sub-Adviser:*** OppenheimerFunds, Inc.
Balanced		
	MML Blend Fund (Service)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Barings LLC
	Oppenheimer Conservative Balanced Fund/VA (Service) [3]	***Adviser:*** OFI Global Asset Management, Inc. ***Sub-Adviser:*** OppenheimerFunds, Inc.
Large Cap Value		
	MML Equity Fund (Service)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Advisers:*** OppenheimerFunds, Inc. and Brandywine Global Investment Management, LLC
	MML Equity Income Fund (Service)	***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 (Service)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Barrow, Hanley, Mewhinney & Strauss, LLC

Fund Type	Investment Funds in Which the Sub-Accounts Purchase Shares	Investment Fund's Adviser and Sub-Adviser
Large Cap Blend		
	Fidelity® VIP Contrafund® Portfolio (Service Class 2)	***Adviser:*** Fidelity Management & Research Company ***Sub-Adviser:*** FMR Co., Inc.
	Invesco V.I. Diversified Dividend Fund (Series II)	***Adviser:*** Invesco Advisers, Inc. ***Sub-Adviser:*** N/A
	MML Equity Index Fund (Service 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 Growth & Income Fund (Service)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Massachusetts Financial Services Company
	Oppenheimer Main Street Fund®/VA (Service)	***Adviser:*** OFI Global Asset Management, Inc. ***Sub-Adviser:*** OppenheimerFunds, Inc.
Large Cap Growth		
	MML American Funds® Growth Fund (Service Class I) [4]	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** N/A
	MML Blue Chip Growth Fund (Service)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** T. Rowe Price Associates, Inc.
	MML Fundamental Growth Fund (Service Class I)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Wellington Management Company LLP
	MML Large Cap Growth Fund (Service)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Loomis, Sayles & Company, L.P.
	Oppenheimer Capital Appreciation Fund/VA (Service)	***Adviser:*** OFI Global Asset Management, Inc. ***Sub-Adviser:*** OppenheimerFunds, Inc.
Small/Mid Cap Value		
	MML Mid Cap Value Fund (Service)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** American Century Investment Management, Inc.
	MML Small Company Value Fund (Service Class I)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** T. Rowe Price Associates, Inc.
	MML Small/Mid Cap Value Fund (Service)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** AllianceBernstein L.P.
Small/Mid Cap Blend		
	MML Small Cap Equity Fund (Service)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** OppenheimerFunds, Inc.
Small/Mid Cap Growth		
	MML Mid Cap Growth Fund (Service)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** T. Rowe Price Associates, Inc.
	MML Small Cap Growth Equity Fund (Service)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Wellington Management Company LLP
	Oppenheimer Discovery Mid Cap Growth Fund/VA (Service)	***Adviser:*** OFI Global Asset Management, Inc. ***Sub-Adviser:*** OppenheimerFunds, Inc.
International/Global		
	MML American Funds® International Fund (Service Class I) [4]	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** N/A
	MML Foreign Fund (Service)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Templeton Investment Counsel, LLC
	MML Global Fund (Service Class I)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Massachusetts Financial Services Company

Fund Type	Investment Funds in Which the Sub-Accounts Purchase Shares	Investment Fund's Adviser and Sub-Adviser
International/Global (continued)		
	MML International Equity Fund (Service Class I)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Harris Associates L.P.
	MML Strategic Emerging Markets Fund (Service Class I)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** OppenheimerFunds, Inc.
	Oppenheimer Global Fund/VA (Service)	***Adviser:*** OFI Global Asset Management, Inc. ***Sub-Adviser:*** OppenheimerFunds, Inc.
	Oppenheimer International Growth Fund/VA (Service)	***Adviser:*** OFI Global Asset Management, Inc. ***Sub-Adviser:*** OppenheimerFunds, Inc.
Specialty		
	Invesco V.I. Health Care Fund (Series II)	***Adviser:*** Invesco Advisers, Inc. ***Sub-Adviser:*** N/A
	Invesco V.I. Technology Fund (Series II)	***Adviser:*** Invesco Advisers, Inc. ***Sub-Adviser:*** N/A
	Ivy VIP Asset Strategy (Class II)	***Adviser:*** Ivy Investment Management Company ***Sub-Adviser:*** N/A
	MML Managed Volatility Fund (Service)	***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

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 May 1, 2009. For contracts issued prior to May 1, 2009, you may not allocate any new money to this fund via purchase payments or transfers.*

4 *The fund is a "feeder" fund, meaning that it does not buy investment securities directly, but instead invests in shares of a corresponding "master" fund, which in turn purchases investment securities. A fund offered in a master-feeder structure may have higher expenses than those of a fund which invests directly in securities because the "feeder" fund bears its own expenses in addition to those of the "master" fund. You should read the fund prospectuses for more information about this "feeder" fund.*

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.

Appendix H – Funds

Pre-2008 Version: Contracts Applied for Prior to 9/8/2008 or in States Where the 2008 Version Was Unavailable

The contract offers the following funds. We may add, remove, close or substitute funds.

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
	MML American Funds Core Allocation Fund (Service Class I) [1]	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** N/A
	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		
	MML U.S. Government Money Market Fund (Initial Class) [2]	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Barings LLC
	Oppenheimer Government Money Fund/VA (Non-Service) [2, 3]	***Adviser:*** OFI Global Asset Management, Inc. ***Sub-Adviser:*** OppenheimerFunds, Inc.
Fixed Income		
	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
	Oppenheimer Global Strategic Income Fund/ VA (Non-Service)	***Adviser:*** OFI Global Asset Management, Inc. ***Sub-Adviser:*** OppenheimerFunds, Inc.
Balanced		
	MML Blend Fund (Initial Class)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Barings LLC
	Oppenheimer Conservative Balanced Fund/VA (Non-Service) [4]	***Adviser:*** OFI Global Asset Management, Inc. ***Sub-Adviser:*** OppenheimerFunds, Inc.
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.

Fund Type	Investment Funds in Which the Sub-Accounts Purchase Shares	Investment Fund's Adviser and Sub-Adviser
Large Cap Value (continued)		
	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 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 Growth & Income Fund (Initial Class)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Massachusetts Financial Services Company
	Oppenheimer Main Street Fund®/VA (Non-Service)	***Adviser:*** OFI Global Asset Management, Inc. ***Sub-Adviser:*** OppenheimerFunds, Inc.
Large Cap Growth		
	MML American Funds® Growth Fund (Service Class I) [5]	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** N/A
	MML Blue Chip Growth Fund (Initial Class)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** T. Rowe Price Associates, Inc.
	MML Fundamental Growth Fund (Service Class I)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Wellington Management Company LLP
	MML Large Cap Growth Fund (Initial Class)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Loomis, Sayles & Company, L.P.
	Oppenheimer Capital Appreciation Fund/VA (Non-Service)	***Adviser:*** OFI Global Asset Management, Inc. ***Sub-Adviser:*** OppenheimerFunds, Inc.
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 Company Value Fund (Service Class I)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** T. Rowe Price Associates, 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		
	MML Mid Cap Growth Fund (Initial Class)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** T. Rowe Price Associates, Inc.
	MML Small Cap Growth Equity Fund (Initial Class)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Wellington Management Company LLP
	Oppenheimer Discovery Mid Cap Growth Fund/VA (Non-Service)	***Adviser:*** OFI Global Asset Management, Inc. ***Sub-Adviser:*** OppenheimerFunds, Inc.

Fund Type	Investment Funds in Which the Sub-Accounts Purchase Shares	Investment Fund's Adviser and Sub-Adviser
International/Global		
	MML American Funds® International Fund (Service Class I) [5]	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** N/A
	MML Foreign Fund (Initial Class)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** Templeton Investment Counsel, 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.
	MML Strategic Emerging Markets Fund (Service Class I)	***Adviser:*** MML Investment Advisers, LLC ***Sub-Adviser:*** OppenheimerFunds, Inc.
	Oppenheimer Global Fund/VA (Non-Service)	***Adviser:*** OFI Global Asset Management, Inc. ***Sub-Adviser:*** OppenheimerFunds, Inc.
	Oppenheimer International Growth Fund/VA (Non-Service)	***Adviser:*** OFI Global Asset Management, Inc. ***Sub-Adviser:*** OppenheimerFunds, Inc.
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
	Ivy VIP Asset Strategy (Class II)	***Adviser:*** Ivy Investment Management Company ***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

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 *Unavailable in contracts issued on or after May 1, 2009. For contracts issued prior to May 1, 2009, you may not allocate any new money to this fund via purchase payments or transfers.*

5 *The fund is a "feeder" fund, meaning that it does not buy investment securities directly, but instead invests in shares of a corresponding "master" fund, which in turn purchases investment securities. A fund offered in a master-feeder structure may have higher expenses than those of a fund which invests directly in securities because the "feeder" fund bears its own expenses in addition to those of the "master" fund. You should read the fund prospectuses for more information about this "feeder" fund.*

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.

Appendix I

MassMutual Lifetime Income Protector Examples

All values reflected are end of year values, unless otherwise noted. Examples assume withdrawals occur at the end of the year.

Example 1 ~ Setting of Initial Values

The values shown are based on the following assumptions:

- owner age at issue = 60
- covered person = same as owner
- initial purchase payment = $100,000

Contract Year	Purchase Payment	Withdrawal	Contract Value	Income Base
1	$100,000	$0	$100,000	$100,000

On the contract issue date, the Income Base is equal to the initial purchase payment. The Income Base will be increased for additional purchase payments received prior to the end of the second contract year. The Income Base will not increase for purchase payments received in contract years three and later.

Example 2 ~ Single Life Option, Single Deposit, Income Percentage Increases After Income Begins

The values shown are based on the following assumptions:

- owner age at issue = 60
- single life option is elected.
- covered person = same as owner
- initial purchase payment = $100,000
- death benefit = Basic Death Benefit

Contract Year	Age (Beginning of Year)	Purchase Payment	Withdrawal	Contract Value	Income Base	Income Percentage	Guaranteed Income Floor	Annual Income Amount	Death Benefit
1	60	$100,000	$ 0	$104,622	$100,000	0	$ 0	$ 0	$104,622
2	61		0	109,502	100,000	0	0	0	109,502
3	62		0	114,655	100,000	0	0	0	114,655
4	63		0	120,097	100,000	0	0	0	120,097
5	64		0	125,843	100,000	0	0	0	125,843
6	65		0	131,909	100,000	4.50%	4,500	5,663	131,909
7	66		0	138,316	100,000	4.50%	4,500	5,936	138,316
8	67		0	145,080	100,000	4.50%	4,500	6,224	145,080
9	68		0	152,223	100,000	4.50%	4,500	6,529	152,223
10	69		0	159,765	100,000	4.50%	4,500	6,850	159,765
11	70		7,988	159,740	100,000	5.00%	5,000	7,988	159,740
12	71		7,987	159,715	100,000	5.00%	5,000	7,987	159,715
13	72		7,986	159,690	100,000	5.00%	5,000	7,986	159,690
14	73		7,985	159,666	100,000	5.00%	5,000	7,985	159,666
15	74		7,983	159,640	100,000	5.00%	5,000	7,983	159,640
16	75		8,780	158,817	100,000	5.50%	5,500	8,780	158,817
17	76		8,735	157,993	100,000	5.50%	5,500	8,735	157,993

- The Income Base is established as the initial purchase payment.
- The Annual Income Amount and the Guaranteed Income Floor are calculated on the Income Eligibility Date.
- Withdrawals of the Annual Income Amount begin at age 70, triggering lifetime income.
- The Income Percentage is established at 5% (age 70 is age of first withdrawal).
- The Income Percentage increases due to market performance in contract year 16. This is the year the Covered Person moves into a new age range and the contract value is greater than the Income Base.

Example 3 ~ Joint Life Option, Single Deposit, Income Percentage Increases After Income Begins

The values shown are based on the following assumptions:

- owner age at issue = 60
- beneficiary (spouse of owner) = 57
- covered person = same as owner
- 2nd covered person = same as beneficiary
- initial purchase payment = $100,000
- death benefit = Basic Death Benefit

Contract Year	Owner Age (Beginning of Year)	Beneficiary Age (Beginning of Year)	Purchase Payment	Withdrawal	Contract Value	Income Base	Income Percentage	Guaranteed Income Floor	Annual Income Amount	Death Benefit
1	60	57	$100,000	$ 0	$104,622	$100,000	0	$ 0	$ 0	$104,622
2	61	58		0	109,502	100,000	0	0	0	109,502
3	62	59		0	114,655	100,000	0	0	0	114,655
4	63	60		0	120,097	100,000	0	0	0	120,097
5	64	61		0	125,843	100,000	0	0	0	125,843
6	65	62		4,404	127,505	100,000	3.50%	3,500	4,404	127,505
7	66	63		4,463	129,202	100,000	3.50%	3,500	4,463	129,202
8	67	64		4,522	130,935	100,000	3.50%	3,500	4,522	130,935
9	68	65		5,237	132,049	100,000	4.00%	4,000	5,237	132,049
10	69	66		5,282	133,181	100,000	4.00%	4,000	5,282	133,181
11	70	67		5,327	134,331	100,000	4.00%	4,000	5,327	134,331
12	71	68		5,373	135,499	100,000	4.00%	4,000	5,373	135,499
13	72	69		5,420	136,686	100,000	4.00%	4,000	5,420	136,686
14	73	70		6,151	137,209	100,000	4.50%	4,500	6,151	137,209
15	74	71		6,174	137,737	100,000	4.50%	4,500	6,174	137,737
16	75	72		6,198	138,271	100,000	4.50%	4,500	6,198	138,271
17	76	73		6,222	138,810	100,000	4.50%	4,500	6,222	138,810

- The Income Base is established as the initial purchase payment.
- The Annual Income Amount and the Guaranteed Income Floor are calculated on the Income Eligibility Date, based on the age of the younger covered person.
- Withdrawals of the Annual Income Amount begin in year 6 (age 62 of the younger covered person), triggering lifetime income.
- The Income Percentage is established at 3.50% (age 62 is age of first withdrawal).
- The Income Percentage increases due to market performance in contract years 9 and 14. These are the years the younger Covered Person moves into a new age range and the contract value is greater than the Income Base.

Example 4 ~ Single Life Option, Single Deposit, Income Percentage Does Not Increase After Income Begins

The values shown are based on the following assumptions:

- owner age at issue = 60
- single life option is elected.
- covered person = same as owner
- initial purchase payment = $100,000
- death benefit = Basic Death Benefit

Contract Year	Age (Beginning of Year)	Purchase Payment	Withdrawal	Contract Value	Income Base	Income Percentage	Guaranteed Income Floor	Annual Income Amount	Death Benefit
1	60	$100,000	$ 0	$99,711	$100,000	0	$ 0	$ 0	$100,000
2	61		0	99,419	100,000	0	0	0	100,000
3	62		0	99,126	100,000	0	0	0	100,000
4	63		0	98,830	100,000	0	0	0	100,000
5	64		0	98,533	100,000	0	0	0	100,000
6	65		0	98,233	100,000	4.50%	4,500	4,500	100,000
7	66		0	97,931	100,000	4.50%	4,500	4,500	100,000
8	67		0	97,627	100,000	4.50%	4,500	4,500	100,000
9	68		0	97,321	100,000	4.50%	4,500	4,500	100,000
10	69		0	97,013	100,000	4.50%	4,500	4,500	100,000
11	70		5,000	91,702	100,000	5.00%	5,000	5,000	95,000
12	71		5,000	86,355	100,000	5.00%	5,000	5,000	90,000
13	72		5,000	80,969	100,000	5.00%	5,000	5,000	85,000
14	73		5,000	75,546	100,000	5.00%	5,000	5,000	80,000
15	74		5,000	70,085	100,000	5.00%	5,000	5,000	75,000
16	75		5,000	64,585	100,000	5.00%	5,000	5,000	70,000
17	76		5,000	59,047	100,000	5.00%	5,000	5,000	65,000

- The Income Base is established as the initial purchase payment.
- The Annual Income Amount and the Guaranteed Income Floor are calculated on the Income Eligibility Date.
- Withdrawals of the Annual Income Amount begin at age 70, triggering lifetime income.
- The Income Percentage is established at 5% (age 70 is age of first withdrawal).
- The Income Percentage does not increase, as the contract value is not greater than the Income Base, when the Covered Person moves into a new age range (year 16 in this example.)

Example 5 ~ Single Life Option, Single Deposit, Excess Withdrawal

The values shown are based on the following assumptions:

- owner age at issue = 60
- covered person = same as owner
- initial purchase payment = $100,000
- death benefit = Basic Death Benefit

Contract Year	Age (Beginning of Year)	Purchase Payment	Withdrawal	Contract Value	Income Base	Income Percentage	Guaranteed Income Floor	Annual Income Amount	Death Benefit
1	60	$100,000	$ 0	$104,622	$100,000	0	$ 0	$ 0	$104,622
2	61		0	109,502	100,000	0	0	0	109,502
3	62		0	114,655	100,000	0	0	0	114,655
4	63		0	120,097	100,000	0	0	0	120,097
5	64		0	125,843	100,000	0	0	0	125,843
6	65		0	131,909	100,000	4.50%	4,500	5,663	131,909
7	66		0	138,316	100,000	4.50%	4,500	5,936	138,316
8	67		20,000	125,103	90,096	4.50%	4,500	6,224	125,103
9	68		5,630	125,595	90,096	4.50%	4,054	5,630	125,595
10	69		5,652	126,093	90,096	4.50%	4,054	5,652	126,093
11	70		6,305	125,965	90,096	5.00%	4,505	6,305	125,965
12	71		6,298	125,837	90,096	5.00%	4,505	6,298	125,837
13	72		6,292	125,707	90,096	5.00%	4,505	6,292	125,707
14	73		6,285	125,577	90,096	5.00%	4,505	6,285	125,577
15	74		6,279	125,447	90,096	5.00%	4,505	6,279	125,447
16	75		6,900	124,688	90,096	5.50%	4,955	6,900	124,688
17	76		6,858	123,929	90,096	5.50%	4,955	6,858	123,929

- The Income Base is established as the initial purchase payment.
- The Annual Income Amount and the Guaranteed Income Floor are calculated on the Income Eligibility Date.
- A withdrawal of $20,000 is taken in year 8 at age 67. This withdrawal is after the Income Eligibility Date, triggering the income start date.
- This withdrawal is an excess withdrawal as it is greater than the Annual Income Amount of $6,224.
- The excess withdrawal reduces the Income Base in direct proportion to the contract value reduction for the amount of the excess withdrawal $13,776 ($20,000 – $6,224 = $13,776). The contract value immediately prior to the $20,000 withdrawal is $145,319. The Income Base after the excess withdrawal is $90,096 ($100,000 x ($145,319 – $6,224 – $13,776) / ($145,319 – $6,224) = $90,096). The Guaranteed Income Floor is recalculated using the new Income Base.

Appendix J

Custom Allocation Choice Select

If you participate in Custom Allocation Choice Select, you must allocate your purchase payments within the minimum and maximum range listed for the sub-accounts below.

Range	Sub-Accounts
40% to 60%	MML Managed Bond
20% to 25% (total)	MML Equity MML Equity Income MML Managed Volatility
20% to 25% (total)	MML Equity Index MML Growth [1]
0% to 10% (total)	MML Mid Cap Value MML Mid Cap Growth
0% to 10% (total)	MML International [2] MML Global Oppenheimer Global

1 *MML Growth sub-account invests in MML American Funds® Growth Fund.*

2 *MML International sub-account invests in MML American Funds® International Fund.*

You may only elect Custom Allocation Choice Select if you are participating in MassMutual Lifetime Income Protector or in the Guaranteed Minimum Accumulation Benefit (see "Transfers and Transfer Programs – Transfers During the Income Phase – Asset Allocation Programs").

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Appendix K

Custom Allocation Choice

For contracts applied for on or after May 1, 2009 and issued prior to May 1, 2010. If you participate in Custom Allocation Choice you must allocate your purchase payments within the minimum and maximum range listed for the sub-accounts below. No allocation greater than 25% is allowed in any one sub-account.

Range	Sub-Accounts
35% to 65% with GMAB [1] (total) 0% to 65% without GMAB [1] (total)	MML U.S. Government Money Market MML Inflation-Protected & Income MML Managed Bond Oppenheimer Global Strategic Income
15% to 25% (total)	MML Blend MML Equity MML Equity Income MML Income & Growth MML Managed Volatility
15% to 25% (total)	Fidelity® VIP Contrafund® MML Equity Index MML Growth & Income Oppenheimer Main Street MML Growth [2] MML Blue Chip Growth MML Large Cap Growth Oppenheimer Capital Appreciation
0% to 10% (total)	MML Mid Cap Value MML Small/Mid Cap Value MML Small Company Value
0% to 10% (total)	MML Small Cap Equity MML Mid Cap Growth MML Small Cap Growth Equity Oppenheimer Discovery Mid Cap Growth
5% to 20% (total)	MML International [3] MML Foreign MML Global Oppenheimer Global Oppenheimer International Growth
0% to 5% (total)	MML Strategic Emerging Markets Invesco V.I. Health Care Invesco V.I. Technology PIMCO CommodityRealReturn® Strategy
0% to 5% (total)	Invesco V.I. Diversified Dividend VY® Clarion Global Real Estate

1 *Guaranteed Minimum Accumulation Benefit*

2 *MML Growth sub-account invests in MML American Funds® Growth Fund.*

3 *MML International sub-account invests in MML American Funds® International Fund.*

If you applied for your contract before May 1, 2009, contact our Service Center or your registered representative for details about ranges, asset classes and investment choices.

Custom Allocation Choice is unavailable to contracts issued on or after May 1, 2010 (see "Transfers and Transfer Programs – Transfers During the Income Phase – Asset Allocation Programs").