Performance Update

As of March 31, 2025

MassMutual Equity EdgeSM Variable Annuity

- Not a bank or credit union deposit or obligation
- Not insured by any federal government agency
 - Not FDIC or NCUA-insured
 - Not guaranteed by any bank or credit union
 - May go down in value

.... MassMutual

Monthly Investment Performance Update for the Period Ending: MassMutual Equity EdgeSM

A deferred variable annuity is a long-term investment designed to help you accumulate assets for retirement. It also offers a broad array of investment choices and asset classes, fixed accounts, death benefit choices and multiple methods to turn those assets into a stream of guaranteed income at some point in the future. (Guarantees are based on the claims-paying ability of the issuing company and do not apply to the investment performance or the safety of amounts held in the variable investment choices.) Variable annuities are not appropriate for everyone. There are fees and charges associated with owning an annuity. **Variable annuities are subject to market risk, including the potential loss of principal.** Also, withdrawals of earnings will be subject to income tax and may be subject to a 10 percent federal income tax penalty if taken prior to age 59 ½.

MassMutual Equity Edge first became available (in most states) on May 1, 2006. However, the underlying funds were established before this date. Therefore, the total returns are computed using hypothetical variable annuity unit values which are based on the underlying fund's performance less separate account expenses for the periods shown, including periods before the product was available. For periods of one year or less, the total return is not annualized and is the percentage change in an Accumulation Unit. For periods greater than one year, the average annual total return for the time periods is shown.

Past performance is no indication of future results. This update contains the most recent month-end performance. Since performance changes daily, the current performance may be lower or higher than the performance reflected in this update. The investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. For the most recent month-end performance information, visit our website at www.massmutual.com or call the MassMutual Customer Service Center at (800) 272-2216, Monday - Friday, 8 a.m. to 8 p.m. Eastern Time.

Investing involves risk, including the loss of principal. Each investment choice underlying the variable annuity contract has broad risks that apply to all investment choices, such as market risk, as well as specific risks inherent in particular types of investment choices that may subject your variable annuity contract to greater risk and volatility than the general market.

This material must be preceded or accompanied by the <u>current prospectuses (or summary prospectuses, if available) for the MassMutual Equity</u> <u>Edge underlying investment funds.</u> The funds' prospectuses contain more information about the funds' charges, expenses, risks and investment objectives. Please read the prospectuses carefully before making investment allocation decisions. If you wish to receive additional prospectuses, request them from your registered representative or call the MassMutual Customer Service Center at (800) 272-2216, press 2, 8:00 a.m. to 8:00 p.m. (ET). Please note that MassMutual Equity Edge is closed to new business.

Market Indices as of March 31, 2025

	YTD	1 Year	3 Years	5 Years	10 Years
S&P 500 Index	-4.27%	8.25%	9.06%	18.59%	12.50%
MSCI ACWI Ex USA NR USD	5.23%	6.24%	4.48%	10.92%	4.98%
Russell 2000 Total Return Index	-9.48%	-4.01%	0.52%	13.27%	6.30%
Bloomberg U.S. Aggregate Bond Index	2.78%	4.88%	0.52%	-0.40%	1.46%

Market indices have been provided for informational purposes only; they are unmanaged and reflect no fees or expenses. Individuals cannot invest directly in an index.

The Standard & Poor's 500 Index is an unmanaged measure of common stock total return performance in the U.S.

The Russell 2000 Total Return Index is a broad based, unmanaged index comprised of 2000 of the smallest U.S. domiciled company common stocks (on the basis of capitalization) that are traded in the United States on the New York Stock Exchange, the American Stock Exchange, and NASDAQ.

The Bloomberg U.S. Aggregate Bond Index is an unmanaged index of U.S. corporate bond issues, U.S. Government Securities and mortgage-backed securities.

Total Returns

For the Period Ending: March 31, 2025

Total Returns for MML Equity Index assume election of the 5-year benefit period and reflect total annualized separate account expenses of 1.70% and all fund level expenses. Total Returns for MML Money Market assume that no benefit period was elected and reflect total annualized separate account expenses of 1.35% and all fund level expenses. These returns do not reflect contingent deferred sales charges, the annual maintenance charge, or premium taxes, if any. Their inclusion would reduce the returns shown.

			Cumulative	Average Annual				
	Fund							Since
Separate Account Sub-account	Inception Date	Endnotes	YTD	1 Year	3 Years	5 Years	10 Years	Inception
Money Market								
MML U.S. Government Money Market 7-day yield 0.49%	12/15/1981	1	0.53%	2.80%	2.12%	0.58%	-0.19%	*
Large Cap Blend								
MML Equity Index Fund - I	5/1/1997		-4.80%	5.90%	6.74%	16.11%	10.14%	*

Standardized Total Returns - With Full Surrender

For the Period Ending: March 31, 2025

The standardized returns for MML Equity Index assume election of the 5-year benefit period and reflect total separate account expenses of 1.70%. The standardized returns for MML Money Market assume that no benefit period was elected and reflect total separate account expenses of 1.35%. Additional assumptions include a single \$1,000 purchase payment made at the beginning of the periods shown, and full surrender on the last business day of the most recent calendar quarter, annual maintenance charge (contract level charges) of \$40.00 allocated proportionately for each investment option, fund level expenses, and Contingent Deferred Sales Charges (CDSC) – Contract Year:

<u>1 2 3 4 5 6 7 8 9 10+</u> 8% 8% 7% 6% 5% 4% 3% 2% 1% 0%

These returns do not reflect premium taxes, if any. Their inclusion would reduce the returns shown. Please note that the amount of the CDSC depends on the principal protection benefit period selected, the amount you withdraw or apply to an annuity option and the length of time between when we issue your contract and when you make a withdrawal or apply your contract value to an annuity option.

			Cumulative	Average Annual				
Separate Account Sub-account	Date Added Separate Account	Endnotes	YTD	1 Year	3 Years	5 Years	10 Years	Since Date to Account
Money Market								
MML U.S. Government Money Market 7-day yield 0.49%	5/29/2007	1	-9.35%	-7.27%	-2.29%	-2.55%	-2.51%	-3.13%
Large Cap Blend								
MML Equity Index Fund - I	5/1/1999		-14.25%	-4.41%	2.20%	13.59%	8.62%	3.32%

Credited Fixed Account Interest Rates Effective

For the Period Ending: March 31, 2025

Fixed account interest rates are credited at the rate shown for the length of the guarantee period. In the future, rates may be lower or higher. They do not reflect contract charges, the inclusion of which would reduce the return shown.

	•	Previous	New	Change
Guarantee	d Interest Rate			-
	5-Year Benefit Period	2.50%	2.50%	0.00%
	7-Year Benefit Period	N/A	N/A	
	10-Year Benefit Period	N/A	N/A	
	Fund Allocations	Fixed	Separate	
		Account	Account	
	5-Year Benefit Period	80%	20%	
	7-Year Benefit Period	N/A	N/A	
	10-Year Benefit Period	N/A	N/A	

If a contract offered a guaranteed minimum interest rate different than the current applicable base interest rate listed, the contract holder will receive the higher of the two rates. The product, certain features and/or investment choices may not be available in all states or with all firms contracted with MassMutual.

* In States that offer a guaranteed interest rate on MassMutual Equity Edge, an MVA applies for any amounts withdrawn from the fixed account more than 30 days prior to the end of the benefit period. Generally, rising interest rates may result in an MVA that negatively impacts a withdrawal, while falling rates may result in a positive adjustment to a withdrawal.

Endnotes

- You could lose money by investing in the Fund. Although the seeks to preserve the value of your investment at \$1.00 per share, it cannot guarantee it will do so. An investment in the is not a bank account and is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The Fund?s sponsor is not required to reimburse the Fund for losses, and you should not expect that the sponsor will provide financial support to the at any time, including during periods of market stress. The yield quotation for this more closely reflects the current earnings of the than the total return quotation. It is an annualized rate based on results over the last seven days of the period, and is net of all recurring contract fees and charges.
- * When the fund has 10 years of performance history the Since Inception return is no longer shown.

An investment in the Fund is neither insured nor guaranteed by the Federal Deposit Insurance Corporation or by any other government agency. Although the Fund seeks to maintain a stable net asset value per share, it is possible to lose money by investing in the Fund. The yield quotation more closely reflects the current earnings of the Fund than the total return quotation. It is an annualized rate based on results over the last seven days of the period, and is net of all recurring contract fees and charges.

MassMutual Equity EdgeSM [Contract Form SPDVA06; SPDVA06-(NC)] variable annuity contract was issued by Massachusetts Mutual Life Insurance Company, 1295 State Street, Springfield, MA 01111-0001. We no longer offer this contract for sale to the public.

Principal Underwriters: MML Investors Services, LLC MML Strategic Distributors, LLC

Subsidiaries of Massachusetts Mutual Life Insurance Company, 1295 State Street, Springfield, MA 01111-0001

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