

Performance Update

As of October 31, 2021

Strategic Group Variable

Universal Life[®]

variable life insurance

- 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



Strategic Group Variable Universal Life®

Strategic Group Variable Universal Life® is a variable rider to a group flexible premium adjustable life insurance policy. The group policy allows individual owners to elect certificates offering participation in MassMutual’s fixed account and to elect a rider to the certificate offering additional participation in a separate account of MassMutual. We refer to the certificates we issue to individuals who elect the variable rider as “policy” or “policies.”

This report gives information only about the performance of the investment options available through the policy. It does not give, and should not be understood to give, information about the overall performance of any policy. **Before purchasing a Strategic Group Variable Universal Life policy, you should request a personalized illustration from your financial representative to see examples of how policy charges can impact the performance of your policy.** The illustration will reflect the deduction of mortality and expense risk charges, premium charges (i.e. sales load, state premium tax and DAC tax charges), surrender charges, the monthly administrative, face amount, and insurance charges, as well as any applicable rider charges specific to the policy. Additionally, if you currently own a policy, you can obtain current illustrations of policy values by contacting your personal financial representative, or by clicking on “contact us” on our web site, or by calling us at (800) 548-0073, Monday – Friday, 8 a.m. to 5 p.m. Eastern Time.

The investment performance figures in this report are based on actual historical performance of the investment options for the periods shown, including for those time periods that begin prior to this policy’s availability date. In most states, the policy first became available on October 1, 1997. For periods of one year or less, the total return is not annualized. 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) 548-0073, Monday – Friday, 8 a.m. to 5 p.m. Eastern Time.

Investing involves risk, including the loss of principal. Each investment choice underlying the policy 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 policy to greater risk and volatility than the general market.

This material must be preceded or accompanied by the [current prospectuses for the Strategic Group Variable Universal Life insurance policy and the prospectuses \(or summary prospectuses, if available\) for its underlying investment choices](#). Before purchasing a policy, investors should carefully consider the investment objectives, risks, charges and expenses of the policy and its underlying investment choices. Please read the prospectuses carefully before investing or sending money.

Interest Rates — Guaranteed Principal Account

The following are effective annual rates used to credit interest on amounts in the Guaranteed Principal Account. These rates do not apply to any loan amounts.

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Current Interest Rate as of: 12/1/20 3.00%; 1/1/21 3.00%; 2/1/21 3.00%; 3/1/21 3.00%; 4/1/21 3.00%; 5/1/21 3.00%; 6/1/21 3.00%; 7/1/21 3.00%; 8/1/21 3.00%; 9/1/21 3.00%; 10/1/21 3.00%; 11/1/21 3.00%.

Market Indices as of October 31, 2021

	YTD	1 Year	3 Years	5 Years	10 Years
S&P 500 Index	24.04%	42.91%	21.48%	18.93%	16.21%
MSCI ACWI Ex USA NR USD	8.43%	29.66%	12.00%	9.77%	6.66%
Russell 2000 Total Return Index	17.19%	50.80%	16.47%	15.52%	13.50%
Bloomberg U.S. Aggregate Bond Index	-1.58%	-0.48%	5.63%	3.10%	3.00%

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 each fund are the actual historical rates and are net of all fund management fees and other operating expenses. **These returns do not reflect the Separate Account Mortality and Expense Risk Charges or policy charges. Policy charges include: premium charges (i.e. sales load DAC tax charges)** significantly lower.

Asset Category	Investment Fund	Fund Inception Date	Endnotes	Cumulative YTD	Average Annual			
					1 Year	3 Years	5 Years	10 Years
Asset Allocation	MML Conservative Allocation (Initial Class)	8/31/2007	1	7.89%	17.68%	10.33%	7.83%	7.09%
	MML Balanced Allocation (Initial Class)	8/31/2007	1	9.17%	20.37%	11.31%	8.80%	7.96%
	MML Moderate Allocation (Initial Class)	8/31/2007	1	10.93%	24.48%	12.11%	9.67%	8.74%
	MML Growth Allocation (Initial Class)	8/31/2007	1	13.09%	29.52%	13.96%	11.42%	10.14%
	MML Aggressive Allocation (Initial Class)	8/31/2007	1	15.25%	35.03%	15.33%	12.89%	11.37%
Money Market	Invesco V.I. Government Money (Series I) <i>7-day yield: 0.01%</i>	4/3/1985	2	0.01%	0.01%	0.74%	0.73%	0.37%
Fixed Income	Invesco V.I. Core Bond (Series I)	5/3/1993	**	-1.40%	0.27%	6.34%	3.71%	4.32%
	Invesco V.I. Global Strategic Income (Series I)	4/3/1985	**	-4.50%	1.59%	2.75%	2.06%	2.97%
	MML Managed Bond (Initial Class)	12/16/1981		0.90%	3.55%	6.61%	4.03%	3.56%
Balanced	Invesco V.I. Conservative Balanced (Series I)	2/9/1987	**	9.68%	17.19%	12.94%	8.95%	8.22%
Large Cap Value	American Century VP Disciplined Core Value (Class I)	10/30/1997		21.05%	38.22%	15.87%	14.68%	13.52%
	American Century VP Value (Class I)	5/1/1996		22.50%	48.54%	12.89%	11.01%	12.20%
	MML Equity (Initial Class)	12/31/1973	3	27.91%	49.68%	15.08%	13.34%	12.43%
Large Cap Blend	Fidelity® VIP Contrafund® (Service Class)	1/3/1995	4	24.85%	39.08%	25.75%	20.61%	16.12%
	Invesco V.I. Main Street (Series I)	7/5/1995	**	24.12%	40.35%	19.88%	16.36%	14.89%
	MFS® Research (Initial Class)	7/26/1995		22.05%	39.01%	20.72%	18.14%	15.30%
	MML Equity Index (Class II)	5/1/1997	5	23.78%	42.53%	21.18%	18.62%	15.91%
Large Cap Growth	Invesco V.I. Capital Appreciation (Series I)	4/3/1985	**	23.24%	42.63%	28.12%	22.73%	16.65%
	MFS® Growth (Initial Class)	7/24/1995		22.61%	37.33%	27.82%	24.69%	18.99%
	MML Blue Chip Growth (Initial Class)	5/1/2006		18.98%	31.69%	25.16%	23.77%	19.13%
	T. Rowe Price All-Cap Opportunities Fund	3/31/1994	***	19.36%	39.80%	29.63%	26.11%	19.25%
Small / Mid Cap Blend	Invesco V.I. Main Street Small Cap (Series I)	5/1/1998	**	23.88%	54.82%	18.64%	16.70%	14.76%
	MML Small Cap Equity (Initial Class)	6/1/1998		24.02%	55.03%	18.97%	16.97%	15.00%
Small / Mid Cap Growth	Invesco V.I. Discovery Mid Cap Growth (Series I)	8/15/1986	**	22.14%	44.88%	30.16%	24.06%	17.75%
	MFS® New Discovery (Initial Class)	5/1/1998		11.85%	38.71%	28.94%	24.98%	16.55%
	T. Rowe Price Mid-Cap Growth	12/31/1996	6	14.61%	34.40%	20.44%	18.88%	16.15%
International / Global	Invesco V.I. Global (Series I)	11/12/1990	**	16.96%	40.69%	22.31%	18.85%	13.85%
	Invesco Oppenheimer V.I. International Growth (Series I)	5/13/1992		11.35%	32.26%	17.99%	11.89%	9.35%
	MML Strategic Emerging Markets (Class II)	8/27/2008	7	-0.70%	17.74%	14.22%	10.19%	4.05%

Endnotes

- 1 Funds offered in a fund-of-funds structure may have higher expenses than a direct investment in the 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 **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 preserve the value of your investment at \$1.00 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.
Although the Oppenheimer Government Money Fund/VA commenced operations on April 3, 1985, the information necessary to calculate the returns is available only for the year 1987 and subsequent periods.
 - 3 Although the MML Equity Fund commenced operations on 9/15/1971, the information necessary to calculate returns is available only for 1974 and later years.
 - 4 The fund established a new class of shares, which is available with this policy, after it began its initial investment operations. The performance for the period prior to offering the new class shows the historical returns for the original class of shares, which were not subject to a 12b-1 fee. The performance shown from the inception date of the class available with this policy includes the fees and expenses of that share class, including a 12b-1 fee. A 12b-1 fee reduces a fund's performance.
 - 5 The fund established a new class of shares, which is available with this policy, after it began its initial investment operations. The performance for the period prior to May 1, 2000 shows the historical returns for Class I shares. Performance for periods after May 1, 2000 shows the historical returns for the share class available with this policy and reflects the fees and expenses of that share class.
 - 6 T. Rowe Price Mid-Cap Growth is not available as an investment choice for policies issued on May 1, 2004 or later.
 - 7 The fund established a new class of shares, which is available with this policy, after it began its initial investment operations. The performance for the period prior to May 1, 2009 shows the historical returns for Service Class I shares. Performance for periods after May 1, 2009 shows the historical returns for the share class available with this policy and reflects the fees and expenses of that share class.
- ** Formerly known as Invesco Oppenheimer V.I. Total Return Bond Fund.
** Formerly known as Invesco Oppenheimer V.I. Global Strategic Income Fund.
** Formerly known as Invesco Oppenheimer V.I. Conservative Balanced Fund.
** Formerly known as Invesco Oppenheimer V.I. Main Street Fund.
** Formerly known as Invesco Oppenheimer V.I. Capital Appreciation Fund.
** Formerly known as Invesco Oppenheimer V.I. Main Street Small Cap Fund.
** Formerly known as Invesco Oppenheimer V.I. Discovery Mid Cap Growth Fund.
** Formerly known as Invesco Oppenheimer V.I. Global Fund.
*** Formerly known as T. Rowe Price New America Growth.

Strategic GUL (Policy Form GULPM-9700 and GULCM-9700) is participating, group flexible premium adjustable life insurance. Strategic GVUL (GVULPM-9700 and GVULCM-9700) is participating, group flexible premium adjustable life insurance with a Variable Rider. In Maryland this product is issued as a Strategic GVUL certificate. Dividends are not expected to be paid. The GUL and GVUL policies and certificates are issued by Massachusetts Mutual Life Insurance Company, Springfield, MA 01111-0001.

Principal Underwriters:

MML Investors Services, LLC
MML Distributors, LLC

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

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