Performance Update

As of March 31, 2025

Strategic Group Variable Universal Life ® II 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



3/31/2025 Page 1 of 5, SGVUL II

Monthly Investment Performance Update for the Period Ending:

March 31, 2025

Strategic Group Variable Universal Life ® II

Strategic Group Variable Universal Life® II is a variable group flexible premium adjustable life insurance policy. The group policy allows individual owners to elect certificates offering participation in MassMutual's fixed account and a separate account of MassMutual. We refer to the certificates we issue to individuals 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 II 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 premium charges (i.e. sales load, state premium tax and DAC tax charges), the monthly administrative, mortality and expense risk, 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 December 18, 2015. 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 <u>current prospectus for the Strategic Group Variable Universal Life II insurance policy and the prospectuses (or summary prospectuses, if available) for its underlying investment choices.</u> 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 policy loan amounts. Effective annual rates used to credit interest on amounts in the Guaranteed Principal Account. These rates do not apply to any policy loan amounts. Current Interest Rate as of: 5/1/24 2.25%; 6/1/24 2.25%; 7/1/24 2.35%; 8/1/24 2.35%; 9/1/24 2.35%; 10/1/24 2.45%; 11/1/25 2.50%; 3/1/25 2.50%; 3/1/25 2.50%; 3/1/25 2.50%.

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.

3/31/2025 Page 2 of 5, SGVUL II

Total Return Rates - Investment Funds

For the Period Ending: March 31, 2025

Total Returns for each fund are the actual historical rates and are net of all fund management fees and other operating expenses. Those returns do not reflect policy charges. Policy charges include: premium charges (i.e. sales load, state premium tax and DAC tax charges), and the monthly administrative, mortality and expense risk, face amount, and insurance charges and any applicable rider changes. If these charges were deducted, the returns would be significantly lower.

			Cumulative	Average Annual				
	Fund							Since
Separate Account Sub-account	Inception Date	Endnotes	YTD	1 Year	3 Years	5 Years	10 Years	Inception
Money Market	4/0/400=		2 2 424	4.400/	0.700/	0.000/	4 =00/	
Invesco V.I. U.S. Government Money 7-day yield 3.80%	4/3/1985	1, 2	0.94%	4.40%	3.79%	2.26%	1.50%	*
Fixed Income Invesco V.I. Global Strategic Income Fund - SERIES I	5/3/1993		3.26%	6.78%	2.61%	4.20%	1.65%	*
MML Dynamic Bond Fund - Service 1	5/15/2015		2.85%	3.32%	-0.22%	0.37%	1.03%	1.40%
MML II High Yield Fund - II	5/3/2010		0.79%	8.01%	4.41%	7.54%	5.10%	*
MML II Inflation-Protected and Income Fund - Initial	8/30/2002		4.09%	6.80%	0.38%	3.22%	2.66%	*
MML II Managed Bond Fund - Initial	12/16/1981		2.75%	6.48%	1.05%	1.84%	1.89%	*
MML Short-Duration Bond Fund - Service 1	5/3/2010	3, 4	1.54%	6.66%	3.75%	3.23%	1.84%	*
MML Total Return Bond Fund - Service 1	5/1/2012	4	2.90%	4.46%	-0.45%	-0.58%	1.05%	*
Asset Allocation								
MML Aggressive Allocation Fund - Initial	8/31/2007	5	-0.77%	4.36%	5.60%	13.44%	7.63%	*
MML American Funds Core Allocation Fund - Service 1	8/15/2008		0.09%	5.97%	5.17%	10.13%	6.65%	*
MML Balanced Allocation Fund - Initial	8/31/2007	5	0.92%	4.86%	3.33%	8.05%	5.04%	*
MML Conservative Allocation Fund - Initial	8/31/2007	5	1.32%	4.88%	2.85%	6.93%	4.44%	*
MML Growth Allocation Fund - Initial	8/31/2007	-	-0.13%	4.56%	4.80%	11.50%	6.71%	*
MML Moderate Allocation Fund - Initial	8/31/2007	5	0.55%	4.66%	3.89%	9.55%	5.63%	"
Balanced MML II Blend Fund - Initial	2/2/1984		-1.92%	6.24%	5.27%	10.89%	7.60%	*
Large Cap Value	2/2/1904		-1.92%	0.24%	5.21 %	10.09%	7.00%	
MML Equity Income Fund - Initial	5/1/2006	7	3.96%	6.71%	6.16%	16.88%	8.81%	*
MML Fundamental Value Fund - Service 1	5/1/2012	4, 3	-0.08%	2.90%	7.25%	18.23%	8.41%	*
MML II Equity Fund - Initial	12/31/1973	8	3.61%	10.46%	9.05%	18.71%	9.48%	*
MML Income & Growth Fund - Initial	5/1/2006	Ü	1.73%	7.98%	7.87%	18.95%	9.63%	*
Large Cap Blend	0, 1,2000		0 /0			10.0070	0.0070	
Fidelity VIP 2 Contra Fund - Service	11/3/1997		-5.53%	8.04%	11.12%	18.81%	12.59%	*
Invesco V.I. Main Street Fund - SERIES I	7/5/1995		-4.41%	5.20%	7.38%	16.25%	10.56%	*
MML Focused Equity Fund - Service 1	5/1/2012	3, 4	-0.99%	3.52%	5.12%	13.19%	10.43%	*
MML Fundamental Equity Fund - Service 1	5/1/2012	3, 4	-4.44%	4.96%	7.06%	15.92%	12.41%	*
MML Sustainable Equity Fund - Initial	5/1/2006	7	-7.21%	0.26%	7.10%	16.03%	10.83%	*
Large Cap Growth								
MML American Funds Growth Fund - Service 1	8/15/2008	5, 3, 9	-7.27%	8.18%	8.72%	19.89%	14.77%	*
MML Blue Chip Growth Fund - Initial	5/1/2006	7	-9.28%	7.88%	8.60%	14.93%	12.76%	*
MML Large Cap Growth Fund - Initial	5/1/2006	7	-9.30%	8.22%	13.20%	18.69%	13.68%	•
Small/Mid Cap Value	E/4/000C	7	0.000/	E 740/	4.400/	44.020/	0.440/	*
MML Mid Cap Value Fund - Initial MML Small Company Value Fund - Service 1	5/1/2006 2/27/2009	7 3, 4	2.09% -6.45%	5.71% -4.59%	4.18% 1.23%	14.93% 14.19%	8.11% 7.18%	*
MML Small/Mid Cap Value Fund - Initial	5/1/2006	7	-0.45% -5.65%	-2.87%	2.76%	17.99%	6.88%	*
Small/Mid Cap Growth	3/1/2000	,	-3.0370	-2.07 /0	2.1070	17.3370	0.0070	
Invesco V.I. Discovery Mid Cap Growth Fund - SERIES I	8/15/1986		-12.60%	-6.43%	0.70%	11.28%	9.22%	*
MML Mid Cap Growth Fund - Initial	5/1/2006	7	-7.59%	-5.67%	2.34%	11.71%	8.64%	*
MML Small Cap Growth Equity Fund - Initial	5/3/1999		-8.78%	-4.66%	-0.47%	13.01%	7.57%	*
Small/Mid Cap Blend								
MML II Small Cap Equity Fund - Initial	6/1/1998		-5.98%	-0.73%	3.77%	17.55%	8.15%	*
International/Global								
Invesco Oppenheimer V.I. International Growth Fund -	E/12/1002		O E 40/	E 2E0/	1 700/	7 060/	4.020/	*
SERIES I	5/13/1992		0.54%	-5.35%	1.72%	7.86%	4.02%	
Invesco V.I. Global Fund - SERIES I	11/12/1990		-5.58%	-1.36%	6.28%	13.71%	8.45%	*
MML Foreign Fund - Initial	5/1/2006	7	9.30%	8.86%	6.33%	12.97%	3.68%	*
MML Global Fund - II	5/1/2006	7	1.53%	1.68%	2.87%	11.58%	7.40%	*
MML II Strategic Emerging Markets Fund - II	5/1/2009	12, 6	2.49%	-0.79%	-0.41%	2.86%	1.94%	*
MML International Equity Fund - Service 1	5/1/2014		6.85%	4.16%	5.43%	14.92%	4.11%	
Specialty Maggueria VID Asset Strategy Series Service	E/1/100E	2 1/ 15	1 510/	6 500/	E 760/	11 500/	E 070/	*
Macquarie VIP Asset Strategy Series - Service MML Managed Volatility Fund - Initial	5/1/1995 5/1/2000	3, 14, 15 13, 10	1.51% -2.38%	6.59% 6.76%	5.76% 4.85%	11.52% 7.97%	5.27% 4.95%	*

3/31/2025 Page 3 of 5, SGVUL II

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.
- 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. Oppenheimer Government Money is not available as an investment choice for contracts issued after January 18, 2008.
- 3 Performance reflects share classes with 12(b)-1 fees from inception which reduces the fund's performance. Please see the fund prospectus for more information about this fee.
- The fund established a new class of shares, which is available with this contract, 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 contract includes the fees and expenses of that share class, including a 12b-1 fee. A 12b-1 fee reduces a fund's performance.
- 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.
- 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.
- The historical performance shown reflects a combination of the current underlying fund's performance, as well as the performance of a prior fund. The current fund's performance is reflected beginning on 5/1/06. The prior fund's performance covers the period between the date listed in the performance table and 4/30/06. This Allocation Fund does not make an investment in the underlying fund. The Fund's allocation is below 0.5%. When the fund has 10 years of performance history the Since Inception return is no longer shown.
- 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.
- The underlying MML Fund does not buy investment securities directly, but instead invests in shares of a corresponding American Funds® "master" fund, which in turn purchases investment securities. The performance of the MML Fund will be lower than the American Funds® master fund because it represents an investment in the American Funds® master fund reduced by the MML Fund's fees. The performance for the period prior to inception of the MML Fund on August 15, 2008, shows the historical returns for the American Funds® master fund adjusted to reflect the MML Fund's fees at its inception (0.70%).
- The portfolio is classified as "non-diversified", meaning it has the ability to take larger positions in a smaller number of issuers than a "diversified" fund. Non-diversified portfolios may experience greater price volatility.
- The Fund may participate in the Initial Public Offering (IPO) market. The market value of IPO shares may fluctuate considerably due to factors such as the absence of a prior public market, unseasoned trading, the small number of shares available for trading, and limited information about the issuer.
- 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 MML Large Cap Value Fund. The Fund's name, investment objective, and investment strategy changed on April 29, 2013. The performance results prior to April 29, 2013 would not necessarily have been achieved had the Fund's current strategy been in effect during that period.
- Specialty funds are an all-encompassing category that consists of funds that forgo broad diversification to concentrate on a certain segment of the economy or a specific targeted strategy. For example, sector funds are targeted strategy funds aimed at specific sectors of the economy, such as financial, technology, healthcare, and so. Sector funds can, therefore, be more volatile than a more diversified equity fund since the stocks in a given sector tend to be highly correlated with each other.
- 15 Formerly known as Delaware Ivy VIP Asset Strategy.
- * When the fund has 10 years of performance history the Since Inception return is no longer shown.

Strategic Group Variable Universal Life® II (policy/certificate forms GVULPM-2015 and GVULCM-2015, GVULPM-2015-NC and GVULCM-2015-NC in North Carolina) is group flexible premium adjustable variable life insurance. This product is non-participating. The Strategic Group Variable Universal Life® II policies and certificates are issued by Massachusetts Mutual Life Insurance Company, Springfield, MA 01111-0001.

3/31/2025 Page 4 of 5, SGVUL II

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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3/31/2025 Page 5 of 5, SGVUL II