... MassMutual

Securing our tomorrow.

2024 Quality & Performance Report





MassMutual: A Commitment to Financial Strength and Value

In the 173 years that have passed since MassMutual was founded, there have been extraordinary moments when we've asked: How do we build a secure tomorrow in a world that is being profoundly reshaped today?

Massachusetts Mutual Life Insurance
Company is a mutual company that is run for
the benefit of its members and participating
policyowners. Founded in 1851, the
company has been continually guided by one
consistent purpose: We help people secure
their future and protect the ones they love.
With a focus on delivering long-term value,
MassMutual offers a wide range of protection,
accumulation, wealth management, and
retirement products and services.

For more information, visit us at www.MassMutual.com

A Leading Mutual Life Insurance Company

As a mutual company, we are able to take a long-term approach to managing our business. This has enabled us to deliver strong results for our participating policyowners while maintaining financial strength ratings that are among the highest in our industry. We benefit from the diversification of our businesses, products, and investments, especially in these more volatile times.

We've seen our clients through difficult experiences, from the loss of a loved one to wars, economic crises, pandemics, bank failures, geopolitical unrest, and more. Throughout our long history, we have stood by the notion that we all do better when we look out for one another.

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MassMutual continues its tradition of strength, stability, and performance.

2023 Highlights

- More than doubled our total adjusted capital over the past decade to nearly \$34.5 billion, an increase of 1.8 percent year-over-year.
- Paid an average of \$25 million in insurance and annuity benefits each day in 2023, delivering on our commitments to customers and their families when they need it most.
- Ended 2023 with \$500 billion in assets under management.¹

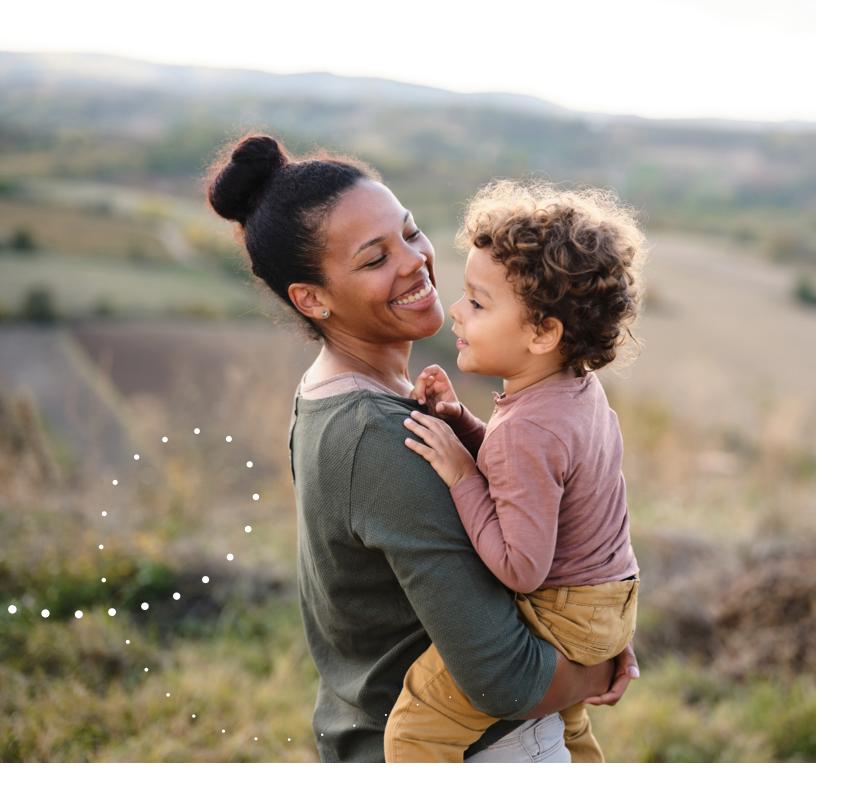
- Surpassed \$1 trillion of life insurance protection in force,² providing financial security to our policyowners and their families.
- Total revenue increased 10.5 percent year-over-year, benefitting from MassMutual's diversified product and investment portfolios.
- Reported sales from its domestic insurance operations of \$39 billion in total sales in 2023.³ Our broad product portfolio, diversified, long-term investment strategy,

- and a multi-channel distribution approach underpin our company's track record of success.
- The MassMutual Foundation partnered with local community members and organizations to help build financial resilience, leading to more opportunities for all. In 2023, we also launched our inaugural Live Mutual Week, a week of service for MassMutual employees and affiliated financial professionals to participate in a broad array of onsite, offsite, and virtual volunteer projects.

¹ Assets Under Management (AUM) include assets and certain external investment funds managed by MassMutual subsidiaries, including Barings and MassMutual Ascend.

² These are consolidated statutory results of Massachusetts Mutual Life Insurance Company and its U.S.-domiciled life insurance subsidiaries: C.M. Life Insurance Company, MML Bay State Life Insurance Company, as well as MassMutual Ascend (included for 2021-2023 only), as of December 31, 2023.

³ This is a consolidated sales number for MassMutual and MassMutual Ascend.



A Responsible Company

Employees with Holistic Support – for Work and Life

At MassMutual, we are committed to providing holistic, flexible benefits that fit the changing needs of our workforce, meeting their diverse needs at every stage of life.

MassMutual's Commitment to Sustainability

Being mutual guides our actions today, as it has throughout our history. We focus on the environmental, social, and governance factors that are material to our long-term success. Integration of these factors within our business drives long-term growth, aligns with our steadfast commitment to risk management, sparks innovation, and helps us build the culture and attract the talent we need to succeed in a changing world. We are committed to continuously advancing our sustainability approach and performance in support of our business.

Our culture of sustainability and mutuality is guided by a company-wide sustainability strategy. Learn more about our efforts to build workforce culture and engage with all stakeholders in our sustainability report.

Awards and Accolades

- World's Most Admired Companies, FORTUNE^{4,5}
- Best Places to Work for Disability Inclusion, Disability Equality Index rating of 100%, Disability:IN
- Equality 100 Award: Leader in LGBTQ+ Workplace Inclusion, Human Rights Campaign
- Best Large Companies to Work For in Boston, Built In
- Top Charitable Company, Boston Business Journal
- Top Places to Work in Massachusetts, The Boston Globe
- ESG Industry Top Rated Company, Sustainalytics⁶
- ⁴ MassMutual is also ranked No. 102 on the 2024 FORTUNE 500[®] list.
- ⁵ From FORTUNE. ©2024 FORTUNE Media IP Limited. All rights reserved. FORTUNE 500 (June 2024) and FORTUNE World's Most Admired Company (February 2024) are registered trademarks of FORTUNE Media IP Limited and are used under license. FORTUNE is not affiliated with, and does not endorse products or services
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Investing for the Future

We Take a Strategic, Long-Term View

MassMutual's investment approach is rooted in diversification with a focus on creating long-term value.

One of MassMutual's longstanding, distinct competitive advantages has been our portfolio of strategic businesses and investments. This broad and diverse portfolio includes our non-participating insurance businesses (annuities, Institutional Solutions), our ownership interests in global asset management business (Barings), and other strategic investments (Invesco, Rothesay).

Quality, Diversification, and Risk Management

Our General Investment Account (GIA) — which backs the obligations we make to our policyowners and other customers — is well-diversified and managed with a long-term view. Along with ensuring diversification within and across asset classes, we also employ a rigorous asset liability management process to help mitigate the economic impact of various risks.

Diversification

We diversify the composition of the GIA by investing in a variety of asset classes — from municipal, corporate, and Treasury bonds to commercial mortgages, private equity, and real estate. This approach increases the opportunity to capture positive returns across issuers and sectors while minimizing the impact of underperformance. MassMutual further diversifies by investing in strategic partnerships in international insurance and asset management businesses.

Relative Value

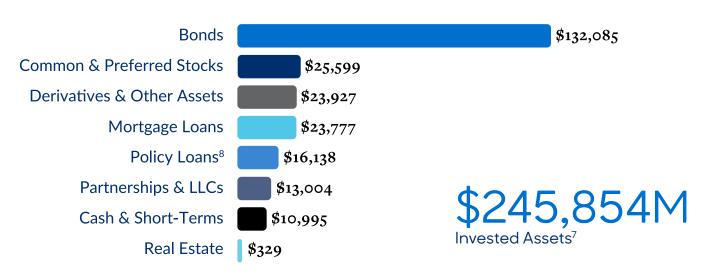
A relative-value assessment of risk versus return informs our decision-making process as we consider various opportunities and their prospective impacts on GIA performance.

Prudent Security Selection

Our investment professionals conduct regular, thorough reviews of both current and potential holdings to ensure that they meet our criteria for inclusion in the GIA.

Invested Assets⁷

As of December 31, 2023 (in Millions)



⁷ Invested Assets exclude \$17,340 million of funds withheld given that 100 percent of the associated investment risk is reinsured. The funds withheld investment portfolio has counterparty protections in place including investment guidelines that were established to meet MassMutual's risk management objectives.

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⁸ Policy loans are loans taken by policyowners against the cash surrender value of their policies and, as such, are secured by the cash surrender value of those policies.

Policyowner Dividends

Annual dividends to eligible participating whole life policyowners include three primary components that reflect the company's favorable operating experience with respect to mortality, investment results, and expenses savings. The dividend paid on a specific policy is determined based on the portion that the policy contributed to surplus.

How Dividends are Determined

Company surplus is primarily the result of favorable operating experience with respect to claims (death benefits paid), investment results, and expenses. A portion is set aside to be paid or applied as policy dividends in the following year. When determining the dividend for an individual policy, the amount paid reflects the portion that each specific policy is considered to have contributed to surplus.

The investment component of the dividend reflects the difference between the dividend interest rate (DIR) set by our Board of Directors each year and the policy's guaranteed interest rate. As a result, prudent investment decisions have allowed us to maintain an industry-leading dividend interest rate for the last 18 years while maintaining outstanding financial strength.⁹

Our eligible whole life insurance policyowners use the dividends they receive in a variety of ways, from increasing their cash value and death benefit to helping to pay their premiums.

Generally, dividends are declared and paid annually. However, since we do not know what our experience will be in future years, we cannot guarantee the payment of dividends.

A History of Dividends to Eligible Participating Policyowners

Dividends are generally declared and paid annually, and although policy dividends are not guaranteed, MassMutual has paid them every year since 1869.

Dividends can help policyowners increase their life insurance coverage and build more value.¹⁰

⁹ The dividend and DIR are determined annually, subject to change, and are not guaranteed. Dividends for eligible participating life insurance policies consist of investment, mortality, and expense components. The DIR is used to determine the investment component of the dividend. It is not the rate of return on the policy and should not be the sole basis for comparing insurers or policy performance.

¹⁰ Dividends are determined annually, are subject to change, and are not guaranteed.





Historical Dividend Results for Participating Whole Life Insurance

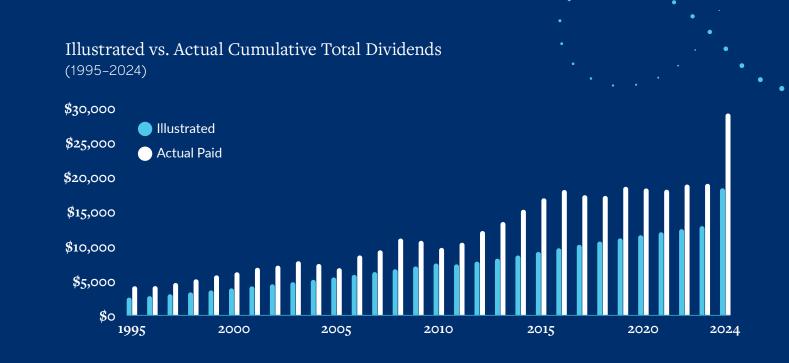
The following is an overview of the historical dividend results for a whole life insurance policy issued by MassMutual to a hypothetical insured in 1995. The policy was a Life Paid-Up at 65 with a \$250,000 face amount, issued on a woman who was age 35 and a Preferred Nonsmoker. The guaranteed annual premium for the policy is \$3,450, and is payable until age 65.

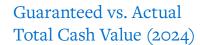
The policy provides a guaranteed amount of life insurance (\$250,000) and a schedule of guaranteed cash values that increase each year and grow to equal the face amount at the insured's age 100. In addition, the policy is participating, which means that it is eligible to receive policy dividends. However, dividends are not guaranteed. The policy was issued with the dividend being used to purchase paid-up additional life insurance or paid-up additions. This is the most common dividend option selected by MassMutual whole life policyowners. Paid-up additions provide additional life insurance protection, accumulate additional cash value and are also eligible to receive dividends. As a result, they have the potential to increase the policy death benefit significantly over a period of many years.

The charts that follow compare the policy values that were guaranteed in 1995 to the actual results with dividends paid through 2024. This includes:

- The total policy cash value, which includes the base policy cash value and the cash value of accumulated paid-up additions.
- The total policy death benefit, which includes the base policy death benefit and the death benefit of accumulated paid-up additions.

The results shown reflect the actual experience of the company over this time period, primarily with respect to investment results, mortality and expenses. Dividends paid in future years will be lower or higher than illustrated, depending on MassMutual's operating experience over time.







The guaranteed cash value for 2024 is \$126,415. The total cash value is \$220,959, which is almost 75% higher. This represents an internal rate of return¹² of 4.88% on the premiums paid through age 64, which totaled \$100,050 (\$3,450 X 29 years).

Guaranteed vs. Actual Total Death Benefit (2024)



The guaranteed death benefit is \$250,000. The total death benefit is \$432,268, which is almost 73% higher. If the policy death benefit is paid in 2024, this will represent an internal rate of return¹² of 8.59% on the premiums paid. The death benefit is generally paid income tax free.

¹¹This policy was issued by MassMutual prior to the merger with the former Connecticut Mutual Life Insurance Company in 1996. Policies in this block of business are no longer available for purchase. The policy was issued with an adjustable loan rate.

¹² The internal rate of return (IRR) is the rate at which premiums paid up to that year would need to be compounded each year to generate the Total Cash Value or Total Death Benefit.



Strategic Businesses and Investments Fuel Earnings

One of MassMutual's longstanding, distinct competitive advantages has been our portfolio of strategic businesses and investments.

This broad and diverse portfolio includes our non-participating insurance businesses (annuities, Institutional Solutions), our ownership interests in global asset management business (Barings), and other strategic investments (Invesco, Rothesay).

In addition, we continue to evolve this portfolio in response to market trends and capitalize on growth opportunities. For example, MassMutual Ascend, a leader in the annuity market with a diversified portfolio of fixed, fixed-indexed, and registered index-linked annuities, has enabled MassMutual to become one of the top annuity providers in America. And Martello Re, a company we founded with other investors in 2022, provides reinsurance services that help us better manage risk in our product suite, with the goal to help other companies do the same.

Strategic Businesses, Investments, and Partnerships

... MassMutual Ascend







Rothesay

Non-Participating Insurance & Annuities

... MassMutual Ventures



... MML Investors Services

Our portfolio of strategic businesses and investments, which generates additional earnings to help maximize the value we deliver to our policyowners, has evolved over time. The following timeline summarizes some of the more recent transactions involving these businesses.



A Strong, Stable Company with Consistent Growth

The rating agencies have recognized our financial strength as reflected in factors like our strong capital, diversified operating earnings, and focus on proven products.

Massachusetts Mutual Life Insurance Company and subsidiary companies have financial strength ratings¹³ that are among the highest of any company in any industry.

Company Ratings

Independent rating agencies assess a company's financial strength and its capacity to meet its insurance obligations, such as the guarantees in life insurance policies or annuity contracts.

Measures of Strength

MassMutual's financial strength is shown by a number of different measures that reflect the company's fundamental stability.

A.M. Best Company A++ (Superior)

Fitch Ratings AA+ (Very Strong)

Moody's Investors Service Aa3 (High Quality)

Standard & Poor's (S&P) AA+ (Very Strong)

Strong Surplus and Capital

Surplus is another key metric for evaluating the financial strength and stability of an insurance company. It represents the financial resources a company has on hand, above and beyond setting aside reserves to meet projected future obligations.

A Strong Surplus and Capital Position

Despite a challenging external environment, our surplus and total adjusted capital grew to historical record levels in 2023, with an increase of more than 3 percent and approximately 2 percent over the prior year, respectively. Since 2003, we have grown our surplus at an average annual rate of approximately 8 percent.

One of the Highest-Ranked Life Insurance Companies for Capital and Surplus

MassMutual is ranked third in the life industry based on surplus as well as total adjusted capital as of year-end 2023.¹⁴ Our 2023 capital ratio, a measure of surplus in relation to an insurer's overall size as measured by total assets, was approximately 9.0 percent, which is in line with the industry average.¹⁵

Outperforming the Industry for Ordinary Life Lapse Ratio

Lapse ratio is a measure of customer retention. Policyowners who are satisfied with the value and service they receive might tend to be less likely to lapse their life insurance policies.

Ordinary Life Lapse Ratio (%) – Five-Year Average (2019–2023)¹⁶

A low lapse ratio is more favorable than a high lapse ratio.

Policyholder Retention

Industry Aggregate 5.20%

MassMutual 2.81%

As of December 31, 2023, our retention rate remains favorable. More than 125,310 life insurance policies have been with MassMutual for more than 50 years — a powerful measure of long-term value and policyowner retention.

¹³ Financial strength ratings for MassMutual and its subsidiaries, C.M. Life Insurance Company and MML Bay State Life Insurance Company, are as follows: A.M. Best Company, A++ (Superior); Fitch Ratings, AA+ (Very Strong); Moody's Investors Service, Aa3 (High Quality); and S&P Global Ratings, AA+ (Very Strong). Ratings are current as of June 1, 2024, and are subject to change.

¹⁴S&P Capital IQ Pro: SNL Life Group data (as of 12/31/2023) includes parent and life subsidiaries adjusted with eliminating entries by S&P Global where relevant. The industry consists of more than 350 groups/unaffiliated companies in the S&P Capital IQ Pro database with year-end 2023 capital and surplus greater than zero.

¹⁵ Capital ratio is a calculation of surplus as a percentage of net admitted assets excluding separate account assets, as of 12/31/2023. Source: S&P Capital IQ Pro.

^{16 &}quot;Ordinary life," in statutory annual statement terminology includes individual life insurance policies but excludes industrial, credit life, and group life policies. Ordinary life lapse ratio is the five-year average of lapses and surrenders as a percentage of average face value of life in force. Lapses and surrenders occur for a variety of reasons, including failure to pay premiums, cancellation of a policy, etc. Ordinary life lapse ratio compares the amount of ordinary life insurance face value lapsed or surrendered during a time period to the average amount of face value in force during that time period. Source: NAIC Statutory Insurance data, sourced from S&P Capital IQ Pro (as of 12/31/2023) on a group basis which includes parent and life subsidiaries adjusted with eliminating entries by SNL where relevant.

A Broad Network of Financial Professionals

MassMutual's network of affiliated financial professionals are the heart of our business and apply their passion, knowledge, and a balanced approach to help our policyowners and other customers develop financial plans for their future. Their guidance is grounded in concentrated research of trends and attitudes, as well as deep insights gained through personal relationships that are developed over time with each client. With a personalized and individual approach, we connect more Americans with the financial tools they need to thrive.

Throughout 2023, MassMutual also continued the expansion of its dedicated third-party distribution channel, MassMutual Strategic Distributors (MMSD), through partnerships across the financial services industry, working with intermediaries, brokerages, banks and wirehouses, and their financial professionals to provide protection to more clients. With MassMutual's diverse and relevant portfolio in place, including whole life insurance, disability income insurance, fixed, income, and variable annuities, and hybrid life/long-term care insurance, MMSD partners with hundreds of financial firms to meet customers where they are with the broader financial solutions and better experiences they need.

Extending Market Reach through Institutional Solutions

MassMutual Institutional Solutions, with over \$105 billion in AUM as of year-end 2023,¹⁷ continues to deliver innovative protection, investment, accumulation, and de-risking solutions to a growing number of diverse corporate and institutional clients.

In 2023, Institutional Solutions launched new money rate bank-owned life insurance (BOLI) solutions in response to the changing interest rate environment and built new company-owned life insurance (COLI) offerings in support of client demand. We invested in pension risk transfer digital and client-facing technology solutions to expand our customer experience and extended our funding agreement reach globally through new issuance in multiple currencies and with additional customers. In addition, we increased our robust suite of stable value offerings for the defined contribution market through the creation of a new GIA solution.



Supporting the Financial Well-Being of Working Americans

MassMutual continues to build a comprehensive portfolio of core protection products that enable us to deliver on our commitments for the long term while finding innovative ways to address financial gaps and changing needs of working Americans. Through our Worksite business we offer life, critical illness, accident, and disability insurance products to help companies provide their employees with new ways to meet their financial goals and feel more confident about their ability to manage the unexpected.

Customized Solutions

Our financial professionals recognize that each of us has different financial needs, but we all share one goal: to make good financial decisions. To support clients, we develop customized financial solutions and follow a needs-based approach. For example, our Special*Care*SM program provides access to information, specialists, and financial products and services that can help improve the quality of life for people with special needs and their families and caregivers.

¹⁷ Institutional Solutions' AUM is included in overall MassMutual AUM.

MassMutual at a Glance

	What We Offer	Who We Help	How We Help
MassMutual	Domestic Insurance and Retirement Solutions	Individuals and familiesBusiness owners	Through a nationwide network of trusted financial professionals, we offer a comprehensive portfolio of products and services that help people secure their future and protect the ones they love. Our offerings include life insurance, disability income insurance, annuities, and protection products available to individuals through the worksite.
Affiliates & Subsidiaries	Wealth and Asset Management	 Institutional investors, including public and private pensions, insurance companies, endowments, and sovereign wealth funds Retail and wealth channel investors, including RIAs Plan sponsors 	Our asset management subsidiary, Barings, is dedicated to meeting the evolving investment and capital needs of its clients and customers around the globe. Through active asset management and direct origination, Barings provides innovative solutions and access to differentiated opportunities across public and private capital markets. Barings also provides additional diversification, leverages many of our core strengths, and is a contributor to MassMutual's financial strength and dividend-paying ability. MassMutual Funds and MassMutual Trust Company add to our wealth and asset management capabilities by offering investment solutions, products, and services to the institutional market and investing public. MML Investors Services LLC, our broker-dealer and registered investment adviser, offers an array of investment products, advisory programs, small business retirement plans, and fiduciary services, lending, and private wealth portfolio management to retail clients through a network of financial advisors.
Institutional Solutions	Financial and Risk Management Solutions for Institutions	 Banks and corporations Institutional investors Retirement professionals and plan sponsors Businesses Banks (BOLI) Corporate (COLI) 	Solving complex institutional needs requires a dedicated, experienced partner that enables businesses to focus on what they do best while making them stronger for the long term. As a highly rated insurance and investment provider, MassMutual delivers the expertise and financial strength required to help our clients meet evolving needs. Using an innovative approach to solution design and a clear focus on client outcomes, we have earned a reputation as a premier provider of comprehensive protection and investment solutions. Our solutions include: BOLI, COLI, Funding Agreements, Stable Value offerings, and Pension Risk Transfer solutions.
MassMutualMassMutualMassMutual			

Funds

Trust Company, FSB

Investments

... MassMutual

∴ MML Investors Services

BARINGS

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